THE EUROPEAN INSTITUTE FOR THE MEDIA

Germany and the Digital World

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on the first survey 2002

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Contents

Introduction

The European Institute for the Media (EIM) has conducted a survey on the impact of the Internet on individual attitudes, on social and economic behaviour and on media use in Germany. This study is part of the World Internet Project (WIP), a joint project with partners in the US, Europe, Middle East, South Africa and Asia. The European Institute for the Media is the official German partner on the WIP and together with the UCLA Center for Communication Policy, Los Angeles, and the School of Communication Studies at Nanyang Technological University, Singapore, one of the project's initiators. The project explores how the Internet influences the social, political and economic behaviour of users and non-users. The World Internet Project pursues an extensive approach and integrates three levels of comparison:

- The teams in the countries involved compared users and non-users.
- By international comparisons the partners relate the development of the Internet, its use and its impact.
- The World Internet Project is a longitudinal study, comparing the societal and (media-)political changes over several years.

The German version of the World Internet Project was carried out by the European Institute for the Media (EIM) in co-operation with the Media Broadcasting Authority of North Rhine-Westphalia (LfM) in Duesseldorf as the main sponsor. For the census and data analysis a co-operation with the European Centre for Media Competence (ecmc) in Marl was agreed. The ecmc conducted an independent study on North Rhine-Westphalia, "NRW: online- offline".

The report is organized in six key areas:

- Internet usage
- Online-offline: Motivation and barriers
- Consumer behaviour
- Media use and trust
- Social and psychological effects
- Special: Young people on the Internet

German data is partially supplemented by results from international WIP surveys.

> "Imagine how much we would have learned if a study of this type had been conducted of television beginning in the early 1950s. If we had five decades of data that showed how TV has changed the world, we would have a much better understanding of how society and culture have evolved in the second half of the 20th century."
> (Jeffrey Cole, Director UCLA Center for Communication Policy, Los Angeles)

The study aims to provide a deeper understanding of the societal and political implications of Internet usage and non-usage. Jo Groebel, General Director of the EIM: "If we understand how communication technologies change our social, economical and political life, than we will be in a position to create a political framework and business models which cope with the demands of today's and tomorrow's generation." Public and private institutions as well as decision makers, against a background of decisions in this field, will develop recommendations on the basis of the study's results.

Research methods

The study's longitudinal design maps out Internet use and its impact in Germany during at least three years. By comparing the data those factors that lead to changes can then be analysed from 2003 on. This will lead to a more complete picture of how people receive and use the medium and how attitudes and behaviours change.

Another characteristic is the fact that users and non-users are included in the study. In order to get insight into the actual influence of the new medium on society as well as on the digital divide issue it is necessary to investigate both groups. The comparison between both groups with respect to demographics, attitudes and behaviour will help to understand the spread and use of the Internet and resulting consequences.

The German survey is part of the international World Internet Project (WIP). The questionnaire includes around 30 internationally standardized questions which have been adapted to national requirements. The standardized questions have been translated, adapted to German terminology and supplemented by other questions that are particularly interesting in our country, such as Internet use via PC, the spread of e-commerce and the use of flat rates. The EIM commissioned the market research company GGmedia Medienforschung & Medienberatung in Munich to conduct the fieldwork.

This survey is based on a representative sample of the German population:

- The CATI-method was applied when carrying out the representative telephone interviews.
- Between 18.12.01 and 20.04.02 **3,004** individuals (German speaking inhabitants between 14 and 75 in private households with telephone lines) were interviewed.
- After the fieldwork the weighting by lifting the disproportional approach for household size, federal state, local size and people according to gender and age (14-75 years) followed. The current Media Analyse (MA) served as a reference.
- The basis for the analysis is **n=2,612** cases (weight cases).

The panel's demography

- Age

14-19 years:	8.3 percent
20-29 years:	13.4 percent
30-39 years:	19.9 percent
40-49 years:	17.9 percent
50-59 years:	16.3 percent
60-69 years:	15.7 percent
older than 70:	8.5 percent

- Education

Hauptschule:	36.9 percent	(Secondary Modern School)
Realschule/Mittlere Reife:	31.8 percent	(Modern School/O-Level)
Allgemeine Hochschulreife/ Fachhochschulreife:	19.0 percent	(High School/A-Level)
University-/FH-degree:	6.9 percent	(College/University Degree)
Other degree/in training:	4.0 percent	

- Income (monthly net income per household)

< 1.000 €:	7.5 percent
1.000 € - 1.500 €:	13.2 percent
1.500 € - 2.000 €:	10.9 percent
2.000 € - 2.500 €:	15.9 percent
> 2.500 €:	0.3 percent

not specified: almost 20 percent

- Sex

Female:	51.2 percent
Male:	48.8 percent

- Place of residence

City, municipal area:	52.7 percent
Rural area:	47.0 percent

Germany and the Digital World

Executive Summary

The study's title "Germany and the Digital World" led the Süddeutsche Zeitung to the following remark: "According to the stress of the title one could assume Germany did not belong to this Digital World. Actually the figures back this stress." (Schrader 2003: 1) 46 percent of respondents do not use the Internet. However, Internet users know exactly why they go online and what for. The key findings of the German survey and international WIP comparison are summarized in the following.

Internet usage

- In 2002, 46 percent of the interviewees in Germany go online and use the Internet either for business related purposes or privately. More than half of the people interviewed are offline (54.1 percent). The non-users can be divided into intended users (17.5%) and those non-users which do not plan to go online within the next 12 months. In the international comparison, Germany belongs to a group of countries where 40-50 percent of the population use the Internet.
- Results on respondents who are likely to use the Internet in future and on the reasons of non-users to stay offline show that growth in users will not be rapid in Germany.

Who is online, who is not?

- The question who is online is strongly linked with demographic factors. In this point the analysis acknowledges the data of existing international studies.
- Internet users tend to be younger and have a higher social background. Furthermore, people without job are less likely to use the Internet. There is no overall access to the Internet all relevant groups in society. Non-users include many in low income, lower educational levels, and older people.
- In Germany, 42 percent of women and 50 percent of men go online. Within the group of users, 53.6 percent are male, 46.4 percent female. People under 50 are over-represented among Internet users, whereas people over 50 are over-represented among non-users.
- Internet usage correlates with the level of income. 29 percent of people with an income (net per household) of under 1.500 euros, 38 percent of persons with an income of under 2.000 euros, more than 50 percent of persons with an income under 2.500 euros and 63 percent of persons with an income over 2.500 euros go online.
- Internet usage also correlates with levels of education. 33 percent of people with a "Hauptschul"-degree and over 60 percent of persons with "Abitur", "Fachhochschulreife" or an academic degree go online.
- Employed persons and those in schooling and training are more likely users. 49 percent of users are employed full time. Persons who do not have access to the Internet and online services at work are more likely to be non-users.

- With respect to the digital divide the data show a slight improvement: Most women, older people and those with a low educational level have been online for less than two years.

Internet access

Type of connections used to access:

- The type of internet connection depends on the telecommunications structure, the availability of specific services and the costs for using these services in each respective country. In Germany, among users with Internet connections at home the main types of connection are ISDN and analogue telephone modem, followed by X-DSL. Compared to other countries the role of ISDN connections in Germany is well above.
- Internet use via mobile phone is small. 18.3 percent of respondents that have a mobile phone with an internet connection use online devices like e-mail or WAP. Longitudinal analysis can track the future DSL and UMTS use, while public initiatives are needed to support a quick, broadband access infrastructure.
- Most Internet connections are billed according to the duration of the connection (unit length). 28 percent of respondents that go online at home have a flat rate. Flat rate users say they spend more time online than they did before. Internet use increased from 58 minutes per day to 137 minutes per day. Flat rate users are satisfied with their form of billing. 85 percent do not expect to go back to a form of billing that charges them for the time spent online.

Usage patterns

Do you use the Internet privately or professionally?

- Most users (61 percent) go online privately, 29 percent for job and private reasons. Private usage is higher among interviewees with lower educational levels and lower incomes.

How long are you online each week?

- Similar to other countries, German users went online for about 8 hours per week on average.
- The users spend more time online at work than at home. On weekdays the respondents go online on average 90 minutes a day at work and 60 minutes at home. On weekends, users go online for about 75 minutes (at home).

What do users do online?

- The top five most popular Internet activities are using e-mail and instant messaging, online inquiries, accessing information on news/current affairs, websurfing in general and downloading files in general.
- The ‘global’ Internet is used locally. 54 percent of respondents access exclusively German language websites. If users access websites in other languages these are mainly English sites (92 percent). This “local-regional” usage is even more distinct in

other countries. In the US, in China and in Taiwan 90 percent of respondents only use websites in their mother tongue.

How long have people been using the Internet?

- Most users in Germany are experienced. 60 percent have been going online for the past two years or longer. 14.6 percent went online in 2001.
- Internet experience has an impact on the way people use the Internet and positively influences the users' self-confidence and their competence in using the medium. In general, users' households are better equipped with electronic devices for media and communication.

Online-offline: Motivation and barriers

Are users satisfied or dissatisfied with the Internet?

- In 2002, Internet users expressed satisfaction with the Internet. Only few users plan to cancel their Internet connection, the main reason being that they "use the Internet too rarely".

Non-users: Why not online?

- The primary reason why most respondents (54.1 percent) are not online is expressed by the standard answer "I don't believe it is actually useful for me". Strategies to foster Internet use must include communication on the value of going online for non-users.
- The reason "Computers and the Internet are too expensive for me" is polarized. On a scale of 1 (low) and 10 (high) almost 23 percent agree, that this reason applies (10), the same percentage of respondents do not consider this as a main reason (1).

Offline Isolation?

- With respect to possible negative aspects being offline may have in the personal environment – for example in every-day communication on computer and Internet issues – interconnections that strengthen the trend in terms of the non-users' demography can be observed.
- 30 percent of non-users feel that they have been excluded from communication with their friends because they do not use the Internet. This applies especially those non-users who belong to groups that are more likely to use the Internet, that is the younger or those with higher educational and income levels.

Will non-users go online in 2003?

- Of respondents who are not online, 17.5 percent say they expect to go online within the next 12 months.
- The majority (78.8 percent) of non-users do not expect to go online.

Likelihood to go online:

- The intention to use the Internet in the future is mainly for private use.

- The probability of future Internet use is high. Almost one third of offliners that plan to go online privately within the next 12 months, say they will do so with a probability of over 90 percent.
- There are more potential users among the young respondents and those with higher incomes.
- Flatrate is a crucial deciding factor when getting connected to the Internet.
- The main decisive factors that made those who want to be connected to the Internet are "For my part I now see an actual benefit in using the Internet" and "People in my immediate environment use the internet".

Consumer behaviour

Do you buy online?

- 48.3 percent of Internet users have purchased online. However, the users did not shop frequently. 56.7 percent of users have purchased one to five times online, one quarter six to ten times. Only the experienced users (with five or more years of Internet experience) frequently buy online.
- Most respondents say that online purchasing does not affect their overall shopping behaviour.

The reasons for purchasing on the Internet:

- For Internet purchasers, the main reasons they shop for goods and services on the Internet is convenience: "On the Internet, you can shop 24/7" and "Shopping over the Internet is comfortable".
- While the fun factor is considered as low, most Internet purchasers say that it is easier to find product information and particular products or services and also to compare prices and products on the Internet, and that it is also time-saving.

Concerns about credit card information, a major problem:

- The study reveals concerns about credit card security. Most Internet purchasers (56.7 percent) say that payments via credit card are either unsafe or very unsafe. 37.6 percent of Internet purchasers say that credit card payments for products on the Internet are safe.
- Non-users have major concerns about paying goods and services online, the delivery of goods and services bought online. Another reason against online-shopping is the lack of shopping experience.

Media use and Trust

The Internet's impact on general media use:

- Respondents use the Internet to complement other media. Interestingly, the users' and the non-users' overall time budget for the media is the same during the week. The time users go online non-users spend watching TV or listening to the radio. Internet use seems to affect TV in particular, whereas there is no significant influence on the time spent with books, newspapers and magazines.

Television viewing declines among Internet users:

- Respondents that go online watch less TV. On weekdays, the average time spent watching TV is 2.4 hours a day (12 hours per week), while non users on average watch 3.2 hours a day (16 hours per week).
- When asked whether users watch more, less or as much TV as before, 26.6 percent of Internet users say that television viewing increases, while 65.2 percent say that television viewing remains stable.

Multi-tasking:

- 40 percent of users listen to music while they are online. About 20 percent use the telephone or watch TV at the same time as they are online. Most multi-taskers are younger than 30.

The Internet as an important source of information? For entertainment?

- As sources of information, newspapers, magazines and TV rank highly. Newspapers and magazines receive a rating of 4.1 on a scale of 1 (low) to 5 (high), television a rating of 4.0, radio and books each a rating of 3.7 and the Internet a rating of 3.5.
- More users than non-users think that the Internet is an important additional source of information. One third of users say the Internet is a very important source of information, whereas one quarter of non-users agree on this.
- For non users, TV serves more as an information lead medium than it does for Internet users.
- The most important source for entertainment for both users and non-users in Germany is TV.
- Online content as a source of entertainment is considered as "very important" by 20 percent of the users and by 12 percent of non users.

Media and problematic content:

- The adult interviewees are critical with regard to problematic (sexually explicit or violent) content. In general, both users and non-users feel particularly critical about the audiovisual media television, video, DVD and the Internet. However, answers differ slightly between users and non-users.
- Internet users are more critical than non-users with regard to sexual content on the Internet. 52.9 percent of adult users say that there is too much sexual content on the Internet. However, of adults who are not online, 43.2 percent do not comment on this issue.
- With regard to TV or Video/DVD content, non-users are more critical than Internet users.
- About 41 percent of adult users and 37 percent of adult non-users say that there is too much violent content on the Internet. Almost half of the respondents who are not online do not comment on this issue.
- The large majority of adult interviewees say that this medium contains too much violent content (69.1 percent of users and 81.2 percent of non-users for television; 60.4 percent of users and 62.8 percent of non-users for Video and DVD).

- 67 percent of respondents think that the government should ban unwanted content on the Internet.

Information on the Internet: Is it reliable and accurate?

- Respondents feel critical about the reliability and accuracy of online content. Just 24.5 percent of users say the majority of information found on the Internet is reliable and accurate. 52.1 percent say that around half of online information is reliable and accurate.

Social and psychological effects

Time with family and friends, time for sports:

- Internet users spend somewhat less time (5.9 hours per week) with household members than non-users. However, most Internet users (80 percent) say that going online has no influence on the amount of time spent with other household members.
- The time spent on sport and social activities is not affected by Internet usage. Internet users say they spend 4.8 hours a week on sports, non-users 4 hours. Users report almost similar amounts of time, spent socialising with friends.

The impact of the Internet on social contacts:

- In contrast to common forecasts the Internet has no negative impact on social contacts. Contact to groups, people share hobbies, religious or political activities with, are stable. Contact with colleagues increased in many cases.

Privacy on the Internet:

- The issue of privacy raises significant concerns about the Internet. Both users and non-users feel critical about privacy protection and data security.
- 49.5 percent of Internet users and 60.1 percent of non-users are of the opinion that most of the people think that new technologies will inevitably lead to a loss of privacy.
- 77 percent of Internet users disagreed with the statement: “On the Internet, I share intimate details of my life that I would generally not reveal in person.”
- There is little trust in both private enterprises and public institutions regarding data protection. In particular with respect to the future developments in e-commerce and e-government these assessments are problematic.

The Internet, political power and influence:

- Few respondents believe that the Internet can enable citizens to take part in political decisions more intensely.

Voting over the Internet:

- If they were able to, over one third of respondents would place their vote over the Internet during elections for the Bundestag. 52.2 percent of users would do so, but only 24.1 percent of non-users would do so.

Does the Internet affect workplace productivity?

- At work, respondents use the Internet mainly for professional but also for private purposes. 59 percent of respondents who use the Internet from their workplace say that they also access the Internet for personal e-mails. 36.8 percent say they also surf the Internet for personal purposes. However, despite the private Internet use at work, 65 percent of users say the Internet is a catalyst for workplace productivity.

Do employers monitor the use of the Internet?

- Internet usage at work is monitored by employers. Almost one third of respondents who use the Internet from workplace stated this. Most of these respondents say that monitoring is not strict.

Non-users and job prospects:

- The majority of non-users (90 percent) do not think that not using the Internet disadvantages them when seeking or changing a job or that not going online has any negative effects on job prospects.
- However, most non-users say that young people have better job prospects when they go online. When asked "What about the younger generation of today: Do you think that the job prospects of young people decrease if they do not use the Internet", the majority of non-users (69 percent) agreed that they do.

Special: Young people and the Internet

- An additional analysis on the 14-19 year olds provides interesting results on the particularities of this age group when using the Internet. 61 percent of 14-19 year olds use the Internet. However, a digital divide also exists in this age group. 14-19 year olds from a higher social background are more likely to go online.
- Young people have different habits when using the Internet or other media. In comparison to users in general, younger people spend more time online and prefer other online activities, in particular online games, downloading music, entertainment and chatrooms.
- Among users between 14 and 19 TV and the Internet rank high as media for entertainment.
- More than users in general, young people are multi-taskers – going online while listening to music, speaking on the phone or watching TV at the same time.
- Most young users under 18 think that they are more proficient in using the Internet than their parents.
- Alone on the web: But despite the medium's increasing role for the youth and parental concern, harmful content could reach children and youngsters unfiltered over the Internet most children in Germany surf the Internet without supervision. 71 percent of adult users say they do not control the internet usage of their children in the household.
- 28 percent take certain measures to control the Internet usage of children under 18 in the household. The most common means are that children have to ask for permission and the use of filtering software. Parents pay little attention to children's Internet use in terms of personal monitoring or supervision.

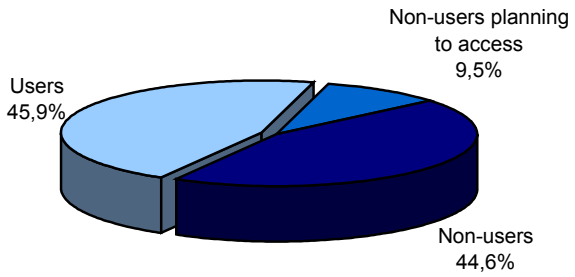
1 Internet usage

In 2002, 45.9 percent of the population in Germany was online and used the Internet either occupationally or privately. 54.1 percent did not use the Internet.

The study defines Internet use as effective Internet usage not just having the possibility to access online services. So, interviewees were asked "Do you presently use the Internet occupationally or privately – i.e. do you browse webpages, do you acquire information from the Internet, do you shop online or do you write e-mails?" Additionally, non-users were asked whether they plan to use the Internet within the next 12 months. 17.5 percent of non-users plan to do so.

Based on these results respondents can be divided into three groups: Internet users (45.9%), Internet non-users (44.6%) and non-users planning to go online (9.6%).

Figure 1-1 Users, non-users and non-users planning to access



(n=2,612)

Compared to other WIP countries, Germany is in the group of countries with an average of between 40 and 50 percent Internet users. Among WIP countries Internet use is highest in the United States, where over 70 percent went online in 2002, up from 66.9 percent in the first UCLA Internet Project in 2000 (UCLA Center for Communication Policy 2003: 17).

1.1 Demographics of users and non-users

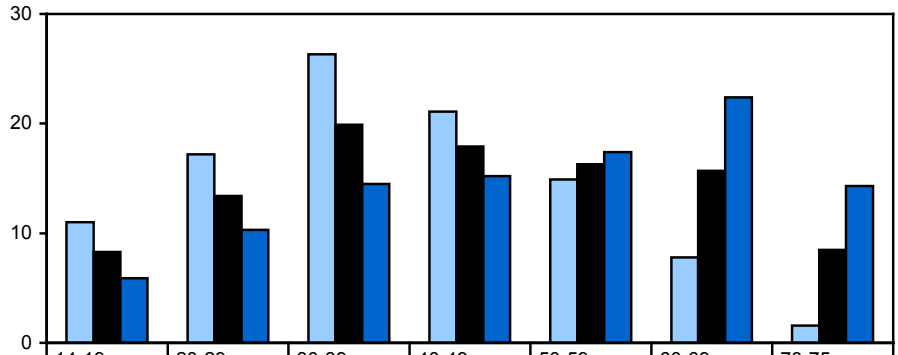
The study finds significant differences between users and non-users with regard to demographic characteristics. The following data on the structure of Internet users and non-users (including intended users) and the dimension of the digital divide in Germany is presented by distinguishing users and non-users according to an indicator such as age or education. This allows a separate categorisation of the users' and the non-users' group for comparison with the national average.

Age

In Germany, Internet use spans every age range, however with a clear tendency: Internet users tend to be younger. Internet use is highest among the 14-19 year olds – 61.2 percent within this age range use the Internet.

However, the largest groups in absolute terms are the middle-aged respondents: 26.3 percent of 30-39 year olds and 21.1 percent among 40-49 year olds. It is noticeable that the balance between users and non-users reverses at around 50 years. Persons aged between 14 and 49 years are over-represented among Internet users, whereas persons over 50 are over-represented among non-users. Figure 1-2 shows the proportion of Internet users and non-users by age categories.

Figure 1-2 Internet use: By age, percentage of respondents



	14-19 years	20-29 years	30-39 years	40-49 years	50-59 years	60-69 years	70-75 years
Users	11,0	17,2	26,3	21,1	14,9	7,8	1,6
Average national scale	8,3	13,4	19,9	17,9	16,3	15,7	8,5
Non-Users	5,9	10,3	14,5	15,2	17,4	22,4	14,3

(n=2,612)

Given the high rate of middle-aged and older persons in the German population the result is abundantly clear. This is underlined by looking at the mean age of users, non-users and the sample. The average respondent is 45 years old, the average Internet user 39 and the average non-user is 50.

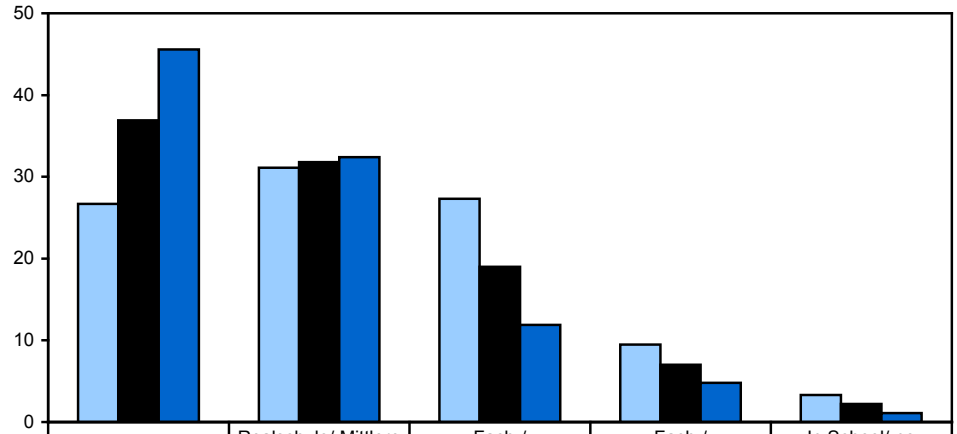
Education

In the public debate on future challenges in an information and knowledge based society, politicians, entrepreneurs and scholars often underline the relevance of access to new technologies for every societal group. Many initiatives have been started to open cyberspace to all social classes.

Not surprisingly, data shows an educational digital divide. The higher the formal educational level the more probable is the use of the Internet. Those with lower educational levels are under-represented among users and over-represented among non-users.

While in Germany 36.9 percent of the population have a "Hauptschul"-degree, only 26.7 percent of Internet users but 45.6 percent of non-users indicate they have a "Hauptschul"-degree. [1] The share of respondents with a "Realschule/Mittlere Reife"-degree is almost equivalent to the national average. With higher degrees such as "Fachhochschulreife/Hochschulreife (Abitur)" and university degrees the trend reverses. These groups are over-represented among users and under-represented among non-users. The same applies to those in school or who have not yet graduated. Figure 1-3 shows the educational structure of users and non-users in comparison with the national average.

Figure 1-3 Internet use: By educational level, percentage of respondents



	Hauptschule	Realschule/ Mittlere Reife	Fach-/ Hochschulreife	Fach-/ Hochschulabschluss	In School/ no Graduation
Users	26,7	31,1	27,3	9,5	3,3
Average national scale	36,9	31,8	19,0	7,0	2,2
Non-users	45,6	32,4	11,9	4,8	1,1

(n=2,612)

[1] German school levels can be translated as follows: Hauptschule (Secondary Modern School), Realschule/Mittlere Reife (Modern School/O-Level), Fachhochschulreife/Hochschulreife (High School/A-Level), Fachhochschulabschluss/Hochschulabschluss (College/University Degree).

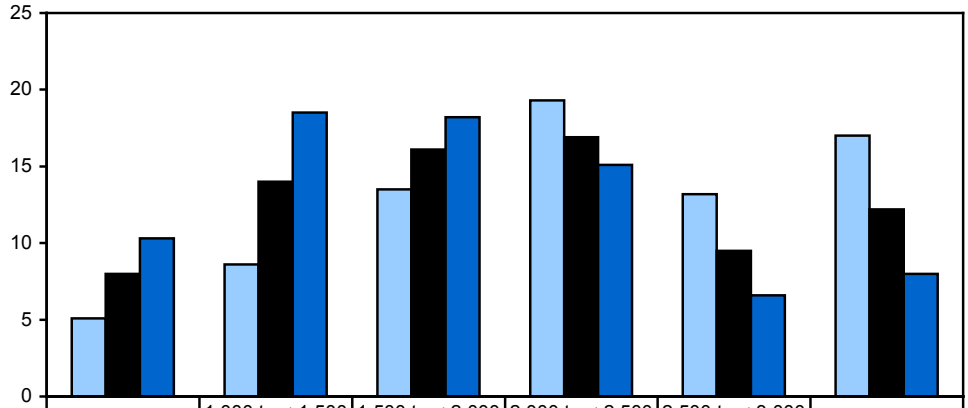
It is uncertain whether Internet usage will come closer to the average of educational levels. Asked whether they plan to use the Internet within the next 12 months, again, "yes-" answers correlate positively with the educational level.

This problem occurs in other WIP countries as well. Though the different educational systems are difficult to compare, there are clear tendencies: The likeliness of using the Internet rises with the educational level. In Japan, among respondents with the highest educational level 71.4 percent go online, compared to only 17.8 percent of persons with Elementary/Junior High School education. In comparison to the year before, the educational divide has even strengthened in Japan (Institute of Socio-Information and Communication Studies and Communications Research Laboratory 2002: 11). In the US, Internet use is also higher among respondents with higher educational levels, however, the share of users per educational group is higher than in other countries and Internet use has risen among respondents from all educational levels. Largest growth rates were among those with some college and those with a high school degree only (UCLA Center for Communication Policies 2001: 22).

Income

Another factor in Internet use is financial background. It is closely connected to educational level as a higher education tends to result in higher income. Persons over 18 were asked for the monthly combined net household income. However, these results need to be interpreted carefully as the income was totalled per household, but Internet use per person.

Figure 1-4 Internet use: By net income, percentage of respondents



	< 1,000 €	1,000 to < 1,500 €	1,500 to < 2,000 €	2,000 to < 2,500 €	2,500 to < 3,000 €	> 3,000 €
Users	5,1	8,6	13,5	19,3	13,2	17,0
Average national scale	8,0	14,0	16,1	16,9	9,5	12,2
Non-users	10,3	18,5	18,2	15,1	6,6	8,0

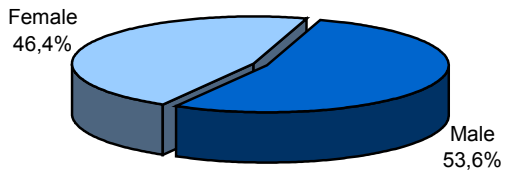
(n=2.612)

The level of income and Internet use are strongly related. Persons living in households with higher income are more likely to use the Internet, whereas persons with lower household income are more likely not to. The tendency changes as income hits the 2,000 to < 2,500 € range. Internet users are over-represented in the highest three income groups.

Gender and marital status

In Germany, unequal numbers of men and women use the Internet. Within the group of Internet users, 53.6 percent are male, 46.4 percent female.

Figure 1-5 Internet users by gender



(n=1,200)

Accordingly, the non-users group is rather dominated by women. Among non-users 55.3 percent are female, 44.7 percent are male. Interestingly, among the 'new' users with less than a year of Internet experience women are over-represented. Therefore, the gender gap can be considered as moderate.

At the international level, throughout the different WIP countries, men are more likely to be Internet users than women, however, the dimensions of the gender gap differs. In China and Singapore the gradient is highest. In China, 64.2 percent of men and 48.9 percent of women go online (Center for Social Development, Chinese Academy of Social Sciences 2000).[2] In Singapore, 56 percent of men use the Internet but only 33.5 percent of women (Kuo et al. 2002: 26). Can women eventually catch up? In countries with a high level of Internet use, such as Sweden and the US, total shares of men and women using the Internet are almost balanced. However, the gender gap differs within the different age ranges. Among younger respondents the gender gap is narrower than among the elder respondents. In Japan, more female than male teenagers aged 12-18 use the Internet, whereas from the age of 25 on more men than women go online (Institute of Socio-Information and Communication Studies and Communications Research Laboratory 2002:13). Similar results can be observed in Germany where the gender gap is small within the 14-19-year age group.

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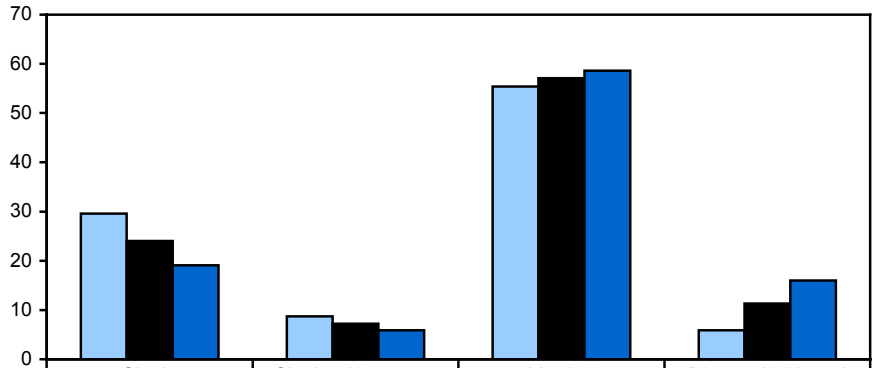
[2] The Chinese WIP researchers chose the country's five biggest cities for the survey. The results are representative for the big cities, not for the whole of China.

Internet users tend to be single or single with partners, whereas married, divorced or widowed persons are less likely to use the Internet. This result partly reflects that young persons are over-represented among users.

Figure 1-6 Internet use: By marital status, percentage of respondents



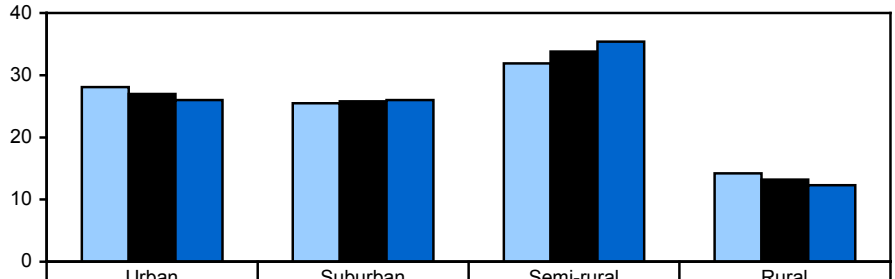
	Single	Single with partner	Married	Divorced/widowed
Users	29,6	8,7	55,4	5,9
Average national scale	24,0	7,2	57,1	11,3
Non-users	19,1	5,9	58,6	16,0

(n=2,612)

Place of residence

Place of residence plays no significant role in the question "who is online?". Distinguishing four types of residence – urban, suburban, semi-rural and rural – only in either urban or rural areas are more people online than the German average (45.9%). Our study finds no significant evidence for an urban and rural gradient.

Figure 1-7 Internet use: By residence, percentage of respondents



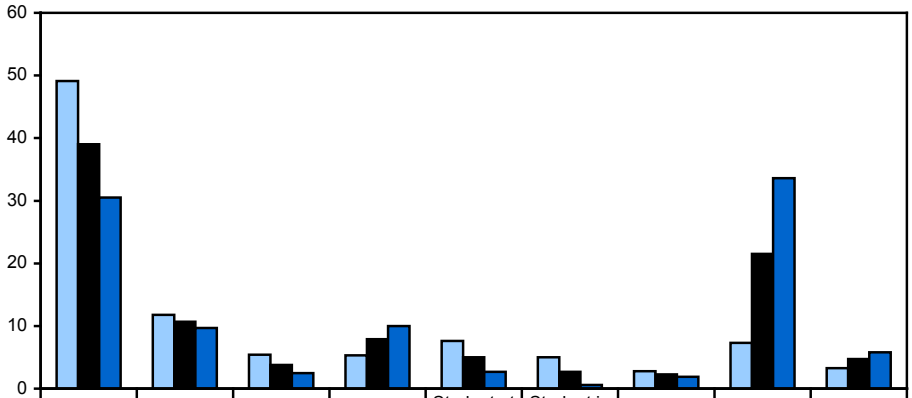
	Urban	Suburban	Semi-rural	Rural
Users	28,1	25,5	31,9	14,2
Average national scale	27,0	25,8	33,8	13,2
Non-users	26,0	26,0	35,4	12,3

(n=2,612)

Occupation

Employment aids Internet use. 57 percent of employed persons and 71 percent of persons in education or training go online, while housewives and pensioners access the Internet least. Figure 1-8 displays the relationship between Internet use and occupation by comparing users, non-users and the national average in Germany in detail. The majority of those in employment and in apprenticeships go online. 50 percent of users are employed full time, whereas only 30.5 percent of non-users are. This compares with an overall average of 39 percent of all respondents being employed full time.

Figure 1-8 Internet use: By occupation, percentage of respondents



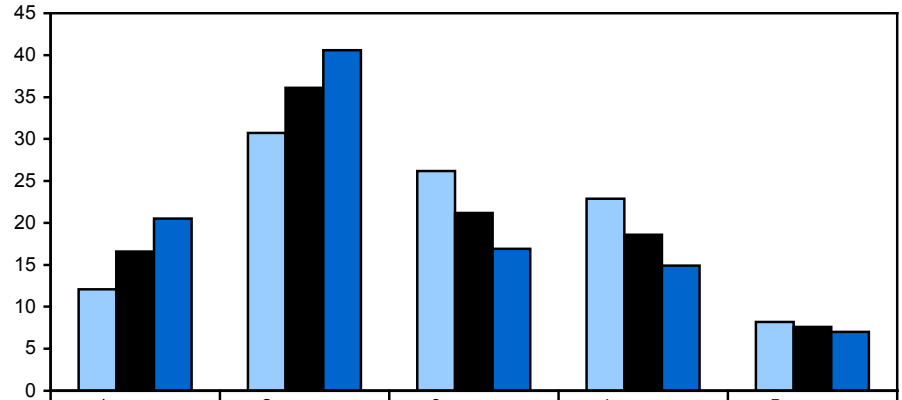
	Employed full time	Employed part time	Self-employed	Housewife	Student at secondary school	Student in higher education	Trainee/ apprentice	Retired/ pensioner	Un-employed
Users	49,1	11,8	5,4	5,3	7,6	5,0	2,8	7,3	3,3
Average national scale	39,0	10,7	3,8	7,9	5,0	2,7	2,3	21,5	4,7
Non-users	30,5	9,7	2,5	10,0	2,7	0,6	1,9	33,6	5,8

(n=2,612)

Size of household

Respondents living in single-households or households with two persons are more frequent non-users than respondents living in households with three or more persons. Among Internet users these households are over-represented. Living together in a household seems to influence whether people go online.

Figure 1-9 Internet use: By size of household, percentage of respondents

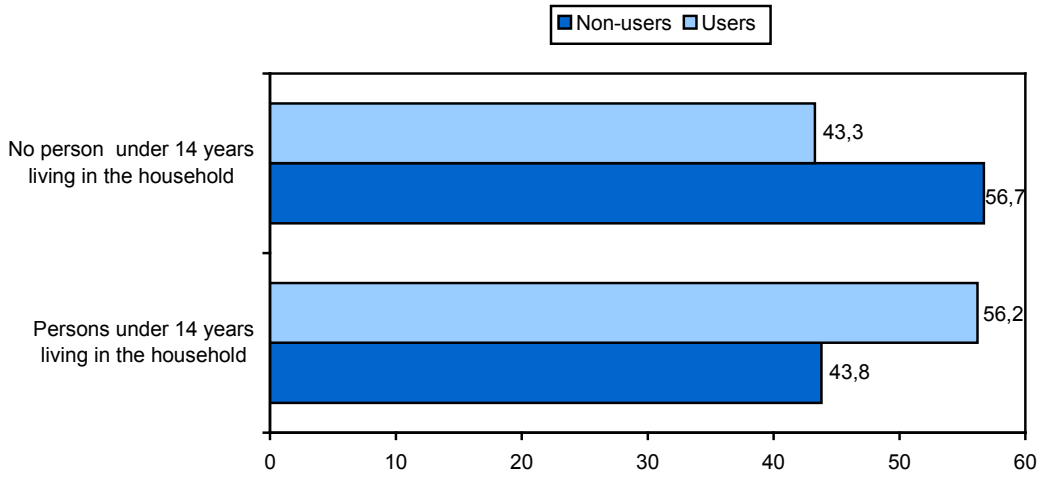


	1 person	2 persons	3 persons	4 persons	5 persons
Users	12,1	30,7	26,2	22,9	8,2
Average national scale	16,6	36,1	21,2	18,6	7,6
Non-users	20,5	40,6	16,9	14,9	7,0

(n=2,612)

Not only the size of household but also whether children live in the house plays a role. Adults that are living together with children under 14 years are more frequent Internet users than persons living without children. While 45.9 percent of overall respondents go online, 56.2 percent of respondents with children under 14 years living in the household but only 43.3 percent of respondents without children do so.

Figure 1-10 Internet usage in households with children under 14 years, percentage of respondents



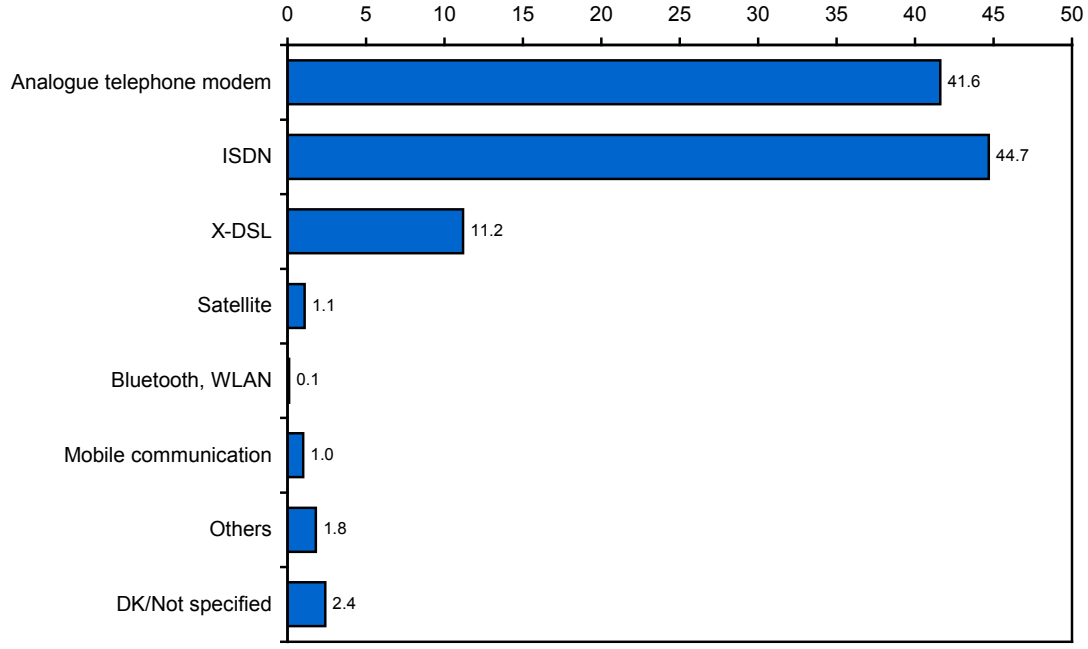
(n=2,612)

1.2 Internet access

New access techniques have expanded the possibilities of accessing ICT based services. Therefore, not only the question "if" someone has access to the Internet but also "how" one connects becomes more important. High-speed Internet connections for multimedia applications or mobile access increase the quality of usage.

In Germany, most respondents say that they connect to the Internet via ISDN-access (44.7 %) or telephone modem (41.6 %) from their homes. At present, 11.2 percent use broadband access (DSL), while Internet use via mobile phone is small (1.0 %). Among respondents that own a mobile phone with an Internet connection (n=303), only 18.3 percent use online services like e-mail or WAP.

Figure 1-11 "What type of connection do you have at home to access the Internet?", percentage of respondents



(n=1,087)

ISDN connections are particularly common among users with a monthly household income of € 1,500 and more, where almost 50 percent use ISDN to go online. In contrast, 53.3 percent of Internet users with a monthly household income of less than € 1,000 use a telephone-modem to go online. Apparently, the area-wide ISDN network in Germany is a reason for the widespread usage of this technique in the countryside. DSL-access is over represented in urban areas, where the technical infrastructure is in place.

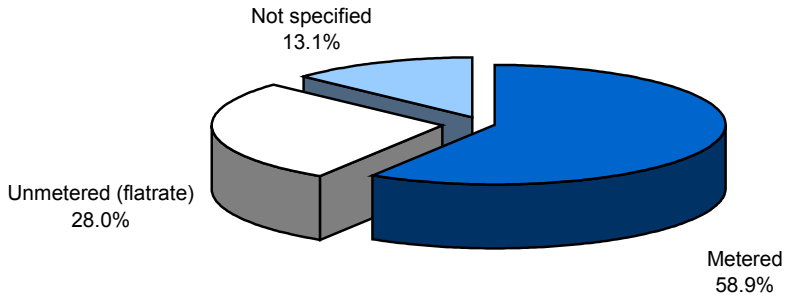
International comparisons show that the type of internet connections depends on the telecommunications structure, the availability of specific services and the costs of using these services in each respective country. The popularity of ISDN in Germany stands out in comparison to other countries.

In the US, more than 80 percent of users access the Internet via analogue telephone modem (UCLA Center for Communication Policy 2001: 25). ISDN does not play a role in the US, while in China 17.9 percent (Center for Social Development, Chinese Academy of Social Sciences 2000: 9) and in Japan 22 percent have this type of connection at home. In Japan however, mobile access is more important. This is due to the fact that there is low density of fixed telephone lines. And last but not least because of the wide use of the iMode-service a total of 24.4 percent of Internet users access the Internet via mobile phone. Mobile access is an important alternative to PC access, in particular for the younger Japanese (Institute of Socio-Information and Communication Studies and Communications Research Laboratory 2002: 13-15). In Germany, in contrast Internet via cell phone is low at present.

1.3 Payment options

Which form of billing do users choose? What is the role of flat rate? Over one quarter (28 %) of German users have a flat rate for private Internet use. 58.9 percent of Internet users are billed according to the duration of the connection.

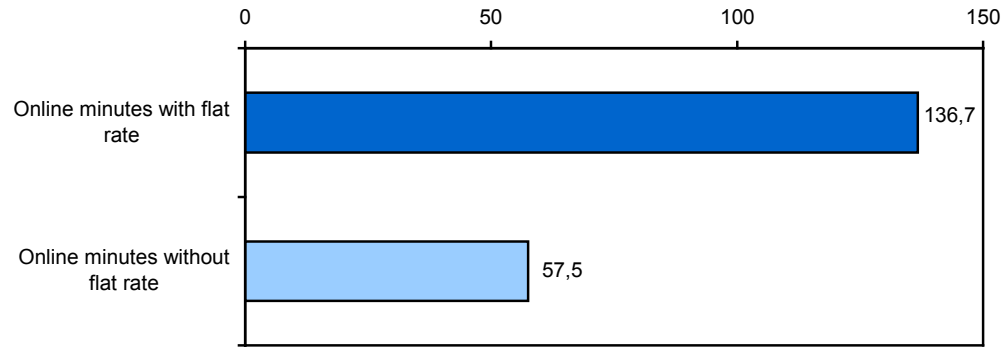
Figure 1-12 Form of billing to access the Internet, percentage of respondents



(n=1,200)

Flat rate users say they spend more time online than they did before – from 58 minutes per day to 137 minutes per day since having a flat rate.

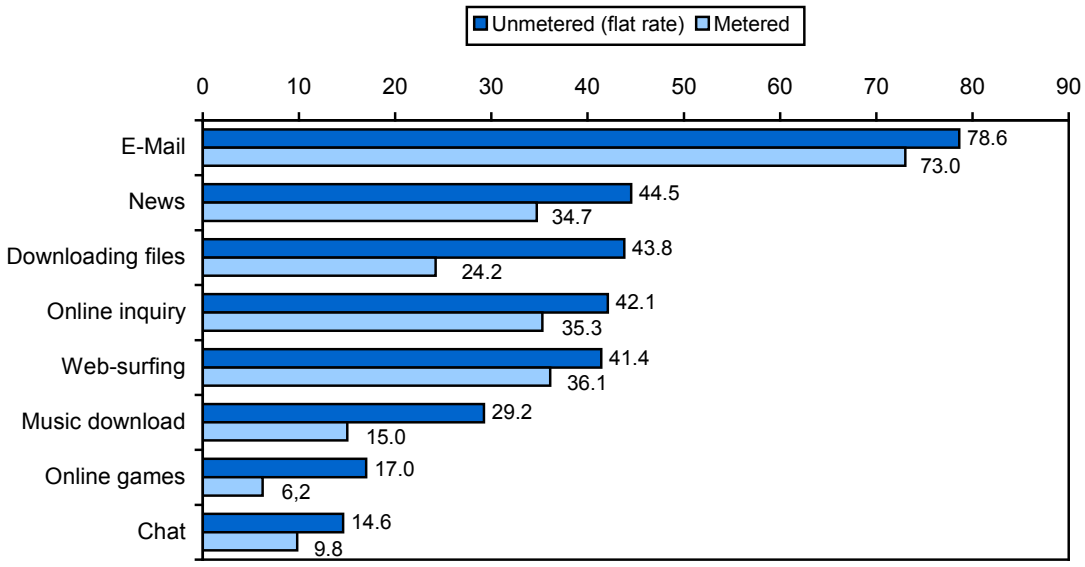
Figure 1-13 Time spent online before and after the introduction of the flat rate, minutes per day



(n=335)

Flat rate users are satisfied with their form of billing. 85 percent do not expect to go back to a form of billing that charges them for the time spent online. The study shows that the form of billing has an effect on Internet activities. Internet users were asked to report whether they use selected online services frequently, seldom or never. More flat rate users than users with metered form of billing use the prompted services frequently.

Figure 1-14 "I use the following services frequently.": By form of billing to access the Internet, percentage of respondents



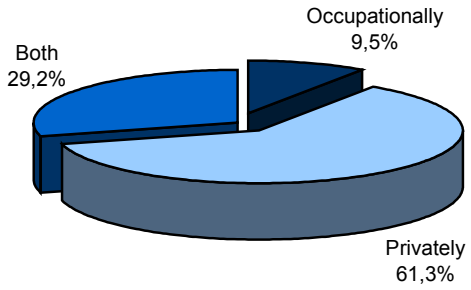
(Flat rate users n=335, users with metered form of billing n=707)

Flat rate users more frequently download files in general as well as music and more often play online games.

1.4 Usage patterns

Internet use is mainly private use. Most users (61 percent) go online privately, 10 percent only occupationally and 29 percent for both private and professional purpose.

Figure 1-15 Private and professional Internet use, percentage of respondents



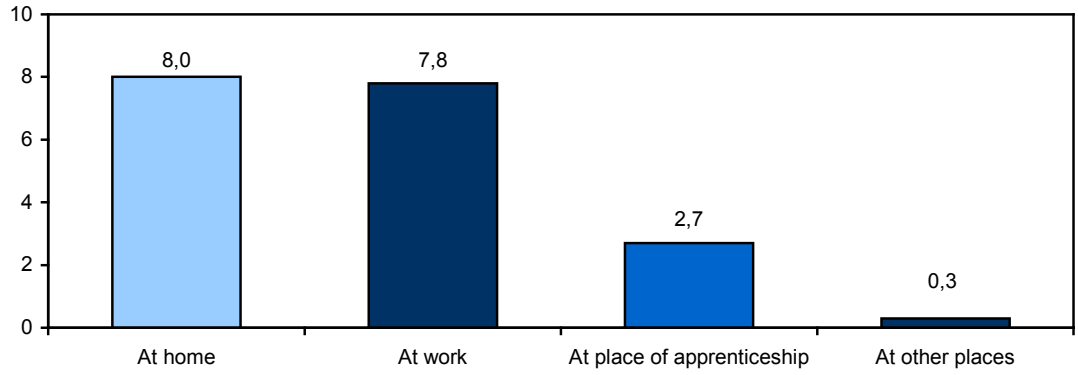
(n=1,200)

This result might be relevant in future as well. 80 percent of those who plan to go online within the next 12 months indicate that they are going to use the Internet privately.

1.5 Time spent online

In Germany, Internet users go for an average of online eight hours per week at home. This amount of time is comparable to the time users spend online in other countries. Internet use at work is almost as high. At the place of apprenticeship (school or training) users go online three hours per week. The use of online services at other places, e.g. Internet cafés, is low.

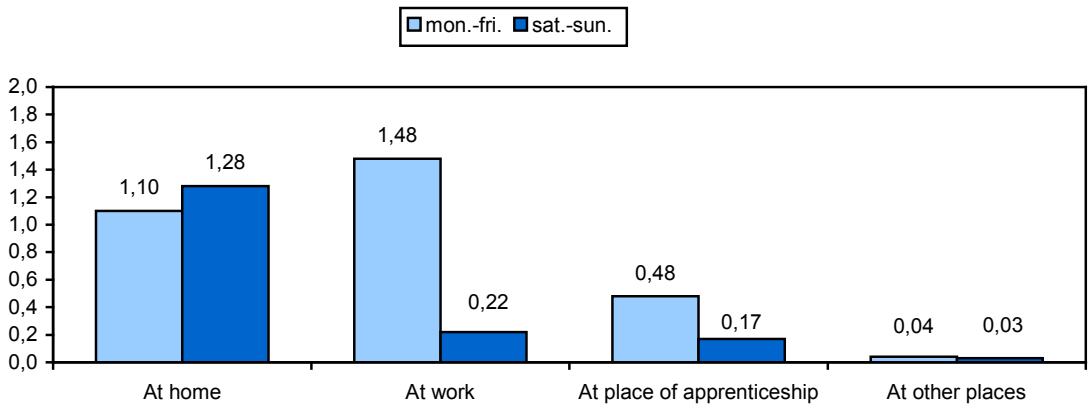
Figure 1-16 Internet use at different places, hours per week



(n=1,200)

Respondents were asked to specify Internet use according to the day of the week. While the intensity of Internet use is only slightly lower on weekdays, the Internet use at work and at the place of apprenticeship, as expected, increases during the week.

Figure 1-17 Internet use at different places during weekdays and weekends, hours per day



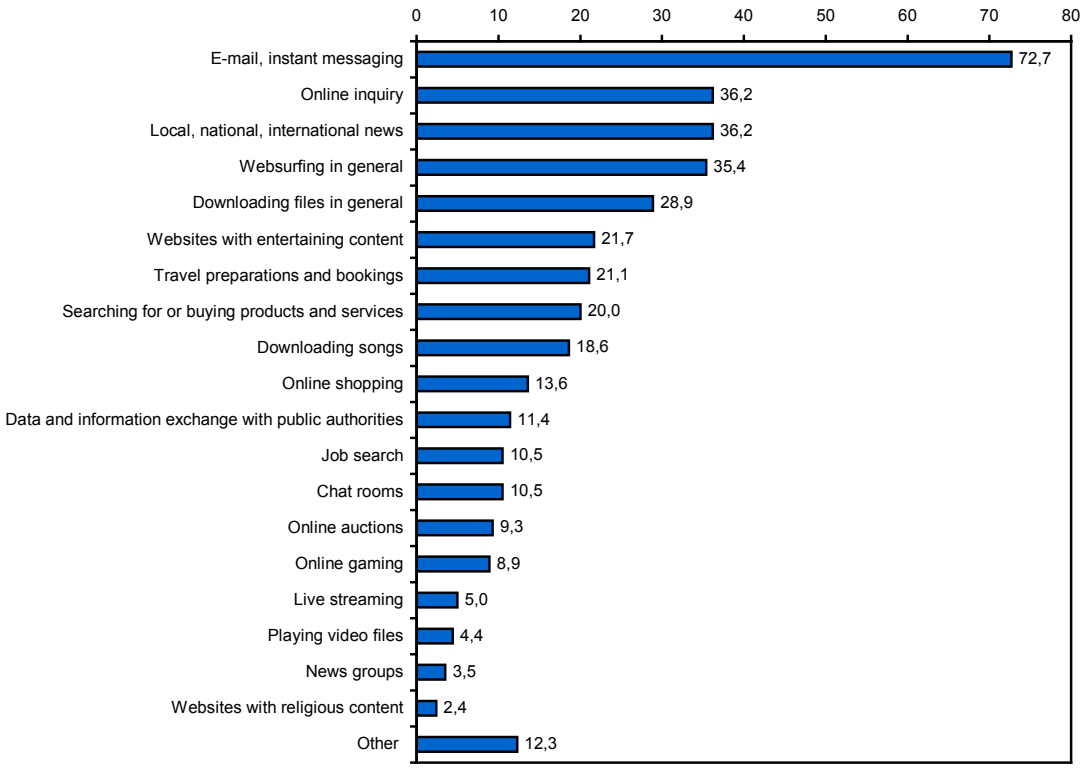
(n=1,200)

1.6 The most popular online activities

Respondents use the Internet differently and for a variety of activities. First of all, the Internet serves as a communication tool: In Germany, as in other WIP countries, reading or writing e-mail or instant messages is the most popular online activity. E-Mail is followed by reading local, national or international news, online inquiries and web surfing in general.

Figure 1-18 shows that 70 percent of the respondents answered that they read or write e-mail or instant messages frequently. More than one third use the Internet frequently for news information, online inquiry and surfing the web in general. These activities are followed by downloading files, entertainment, travel preparations and bookings, the searching for or buying of products and services, downloading music and online shopping. Figures show the preferences of the average users. The study found, that the less frequently used online activities as indicated below – are very popular among young users (see chapter 6.2).

Figure 1-18 Intensity in using online services ("use it frequently"), percentage of respondents



(n=1,200)

Respondents aged 18 and older (n=1,088) were asked to report on the use of online banking and sites with sexual content. Of users over 18 almost one third frequently do online banking. Surprisingly, only 2.3 percent of the respondents say that they visit websites with sexual and erotic content frequently (only 3.2 percent of male respondents). Instead, 80 percent of the respondents answer that they never visit erotic homepages. A possible explanation is the effect of a socially desirable answer during telephone interviews.

The most popular activities differ slightly between the different WIP countries. Whereas in most countries communication takes place via e-mail, in China, Instant messaging is more common. Chinese users report that they use Instant messaging services 4.8 hours a week on average and e-mail 2.5 hours (Center for Social Development, Chinese Academy of Social Sciences 2000: 10). The popularity of Instant messaging may be due to the opportunity to have 'instant' communication', and to the fact that for officials ICQ-servers are more difficult to control than e-mail-servers.

Searching for news and information, partly for personal purposes, but above all for school, university and job, are popular in most countries. General entertainment as well as online gaming and chatting are almost as popular as information services. Due to the prevalent mobile Internet use the download of files (pictures, films) and ring tones is very

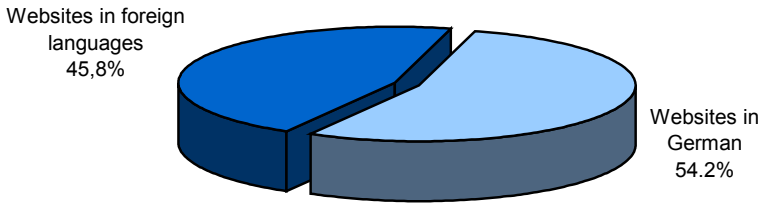
popular (Institute of Socio-Information and Communication Studies and Communications Research Laboratory 2002: 128-129). The American WIP study shows that as a consequence of Internet experience the key aspects of activity change: in the US, less experienced users favour entertainment offerings rather than information (UCLA Center for Communication Policy 2001: 18).

1.7 Languages used online

Do people use the World Wide Web's boundless and global opportunities? In the WIP framework the question regarding languages used online is interesting. This is particularly the case for countries where English is not the native language.

In Germany, the majority of users (54.2%) say they use German language websites exclusively, whereas 45.8 percent also use websites in other languages. This applies in particular for male users, users aged 14 to 29 years and users with higher educational levels.

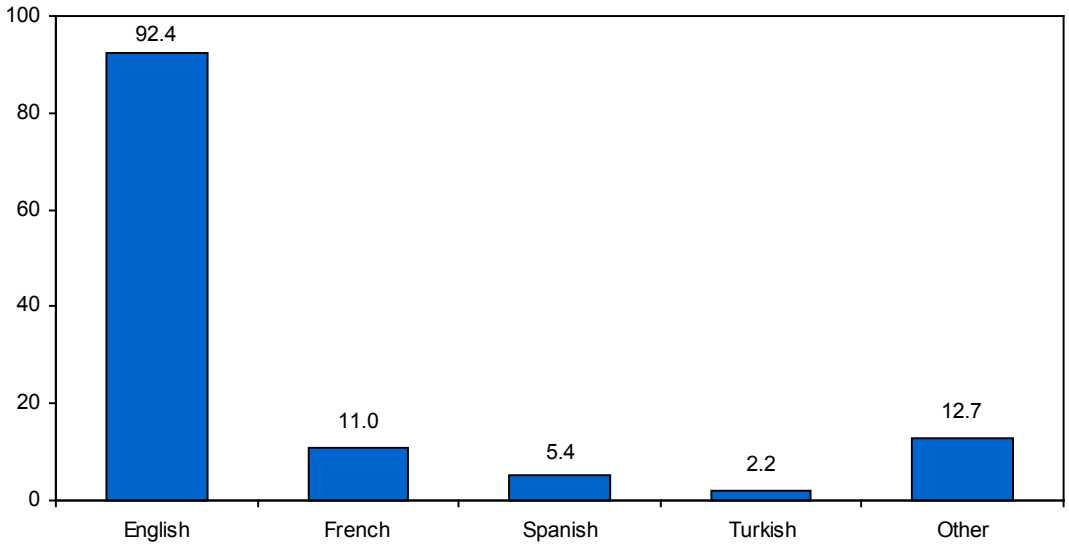
Figure 1-19 Use of websites in German and foreign languages



(n=1,200)

Among the foreign languages used online English is dominant. 92.4 percent of respondents state that they use English websites rather than websites in any other language. Far less respondents access websites in French, Spanish or Turkish.

Figure 1-20 "Which foreign languages do you use online?", percentage of respondents



(n=550)

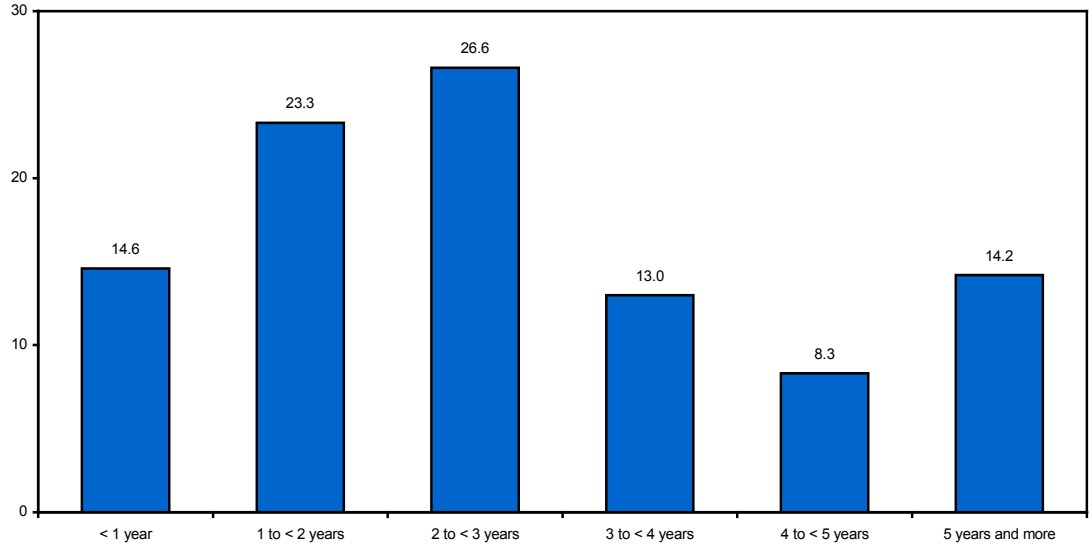
In the US, in China and in Taiwan 90 percent of respondents use websites in their mother tongue exclusively. In the US, over 50 percent of those respondents who access websites in other languages access websites in Spanish (UCLA Center for Communication Policy 2001: 20). In China and in Taiwan people mainly access English websites apart from websites in their language (Center for Social Development, Chinese Academy of Social Sciences 2000: 9; Liu et al. 2002: 5-6). The 'global' Internet is used locally.

1.8 User competence and equipment

The study looks at the aspect of competence from different perspectives – from when users went online, how has experience affected Internet use and how do respondents rate their ability to use the Internet? Furthermore, users and non-users will be compared with respect to the electronic devices available – a basic requirement for individual new media use.

When did users go online? 14.6 percent went online less than a year ago. 50 percent of respondents had been online for one to three years. 14.2 percent belong to the very experienced users with five or more years of Internet experience.

Figure 1-21 Years of Internet experience, percentage of respondents

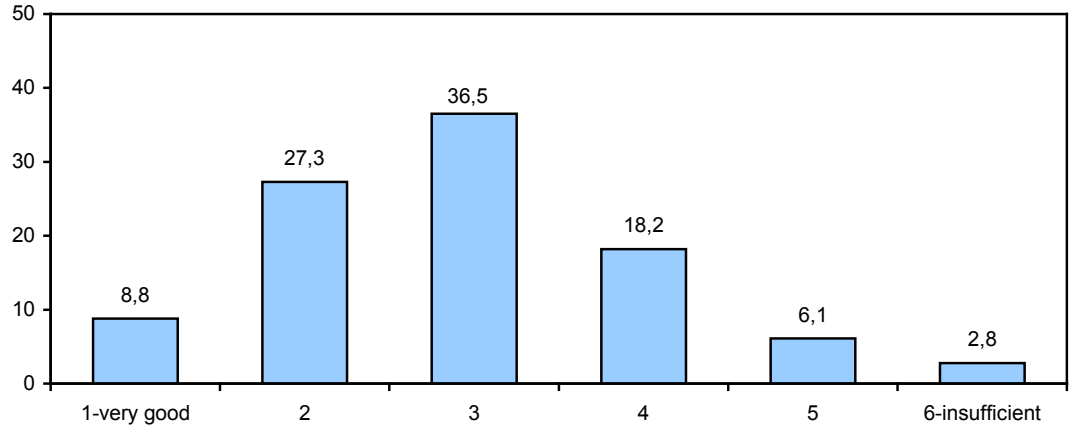


(n=1,200)

Up to now the typical Internet user has often been considered as male, young and highly educated. Looking at demographic characteristics in relation to Internet experience, the differences in gender, age and education seem to have partly diminished. Many female respondents belong to the "new users", also respondents aged 14-19 as well as 70-75. Furthermore, among respondents with lower educational levels there is a high tendency to have less experience.

The users rate their ability to use the Internet as rather average (mean 2.9 on the school grade scale from 1 to 6, where 1 means very good and 6 insufficient). However, 36.1 percent of the respondents rate their ability to use the Internet as very good or good. Most of the Internet users rate their Internet skills as more ordinary.

Figure 1-22 "How would you rate your ability to use the Internet?"*



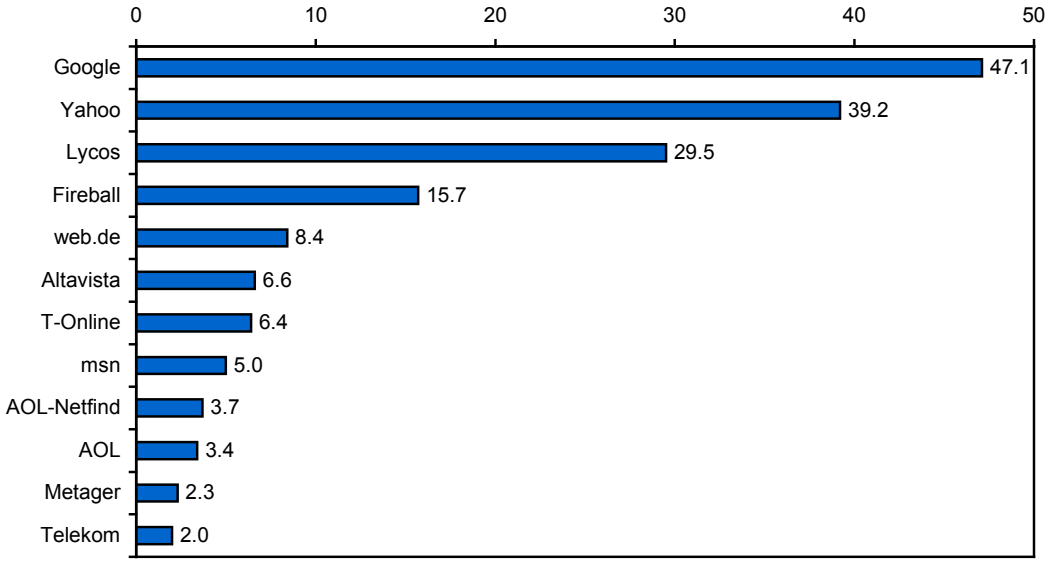
(n=1,200) *Respondents were asked to give school grades from 1 to 6.

The data did not show significant differences for different demographic groups related to this question. However, in terms of Internet experience and type of connection, self-assessment on Internet skills differ. Very experienced users (mean 2.4) and in particular users with broadband access (mean 2.2) rate their Internet skills higher than the average.

American users respond in a more self-confident way to the question of how they assess their Internet skills. In 2001, 65.5 percent rated their skills as good or excellent, in 2002 63,1 percent (UCLA Center for Communication Policy 2001: 23, 2003: 24). A lack of competence is a more important factor among users in Germany than in the US. In the US less non-users say that a lack of competence in computer and Internet use is a reason not to use the Internet (see chapter 2).

Which search-engine do Internet users use to find information? In order to acquire information on actual competence, independent from their self-assessment, users were asked to report on the use of search engines. In Germany, the most frequently accessed search-engines are Google, Yahoo and Lycos. However, it is remarkable that Internet providers like T-Online and telecommunication companies like AOL and the Deutsche Telekom were mentioned as well. This indicates a possible weakness of Internet use, as users may not move freely on the World Wide Web, but mainly access portals or catalogues as entrance sites.

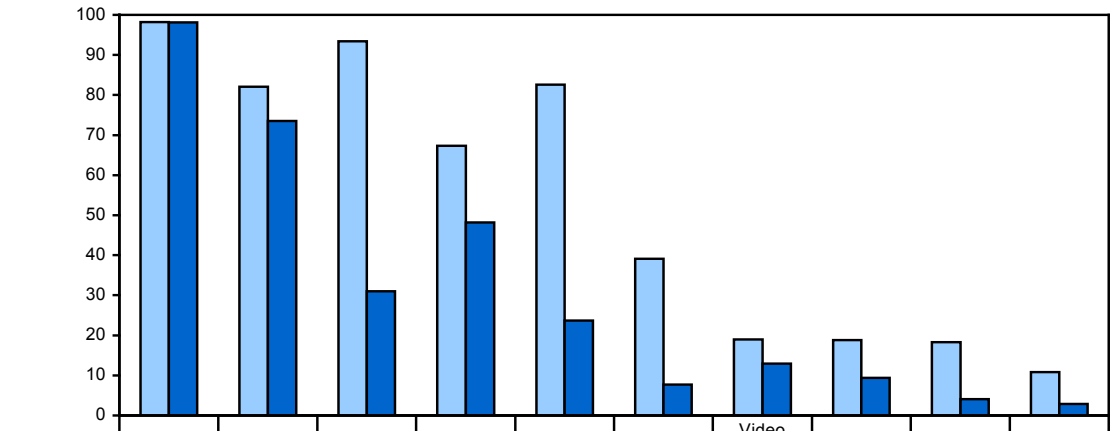
Figure 1-23 Usage of search engines, percentage of respondents



(n=1,200)

Users and non-users show significant differences regarding the possession of electronic devices. Users' households are better equipped with electronic devices for media and communication, varying from video recorders to PC sets, DVD players and digital cameras. TV sets are an exception being equally present.

Figure 1-24 Users and non-users: Equipment with electronic devices, percentage of respondents



	TV	VCR	PC	Cell phone	Printer	Scanner	Video Game Players,	DVD-player	Notebook, PDA	Digital camera
Users	98,2	82,1	93,4	67,3	82,6	39,1	19,0	18,8	18,3	10,8
Non-users	98,1	73,5	31,0	48,2	23,7	7,7	12,9	9,4	4,1	2,9

(n=2,612)

While in Germany on average 60 percent of households own a PC, this applies to 93,4 percent of users' households and to only 31 percent of non-users households. PC possession is still crucial for the question of whether to go online in Germany. Overall, it is evident that Internet users are more open to ICT than non-users. This is even more evident in the US, where the number of users equipped with cell phones, video game players, DVD players and digital cameras is higher (UCLA Center for Communication Policy 2001: 14).

2 Online-offline: Motivation and barriers

Do Internet users stay online? What are the key reasons for not using the Internet? Will non-users go online in 2003? Data on these questions is provided in the following section. The results include information on the situation of non-users and the potential development of Internet usage in Germany.

2.1 User satisfaction

There are few "electronic dropouts" – Internet non-users who were once users. Only 1.5 percent of Internet users plan to get rid of their Internet connection. The major reason for going offline is modest Internet use (47.4 %). Further reasons are the costs – "the Internet is too expensive" – and the lack of time for online activities. A large majority (97.8%) are satisfied with the Internet and do not plan to go offline.

2.2 Demographics of people who have the intention to go online

54.1 percent of overall respondents do not use the Internet. 17.5 percent of these non-users (n=247) say that they expect to go online within the next 12 months.

Table 2-1 shows that there are more people who plan to go online among the young respondents and among those with higher educational levels as well as those with a higher monthly income. No noteworthy difference occurs regarding gender and place of residence.

Table 2-1 Demographics of non-users intending to go online

	%	Frequencies
Male	18.6	118
Female	16.6	130
Income < € 1,000	5.8	8
Income € 1,000-< € 1,500	11.5	29
Income € 1,500- < € 2,000	12.8	31
Income € 2,000- < € 2,500	21.5	44
Income > € 2,500	28.9	57
14-19 years	30.5	26
20-29 years	26.5	38
30-39 years	24.4	50
40-49 years	29.7	64
50-59 years	14.4	35
60-69 years	8.1	26
70-75 years	4.4	9
Hauptschule	13.5	87
Realschule/Mittlere Reife	19.4	89
FH-/ Allgemeine Hochschulreife	24.1	41
FH-/ Universitätsabschluss	26.2	18

(n=247)

Potential new users will mainly go online for private use. 78.8 percent indicate this. 7.1 percent want to use the Internet professionally and 13.3 percent for both private and professional matters.

The probability of planned future Internet use is high. Almost one third (30.1%) of non-users who plan to use the Internet privately within the next 12 months, say they will do so with a probability of over 90 percent. 31.1 percent of respondents say the probability is less than 50 percent.

What reasons are given for going online? Respondents rated the following statements on a scale, where 1 means not important and 5 means very important.

Table 2-2 Reasons for non-users intending to go online, mean 1-5

Factors	Mean
Technology is now sufficiently sophisticated.	3.2
Data traffic is now safe enough.	2.9
Computers are easy to handle.	3.8
Content on the Internet has improved.	3.6
Computers and the Internet have become affordable.	3.6
For my part I now see an actual benefit in using the Internet.	4.0
Now I am able to handle devices and programs on my own.	3.6
There are sufficient public and free opportunities to access the Internet.	3.2
People in my immediate environment use the Internet.	3.9

(n=157; Respondents who plan to use the Internet within the next 12 months with a probability of over 50 percent)

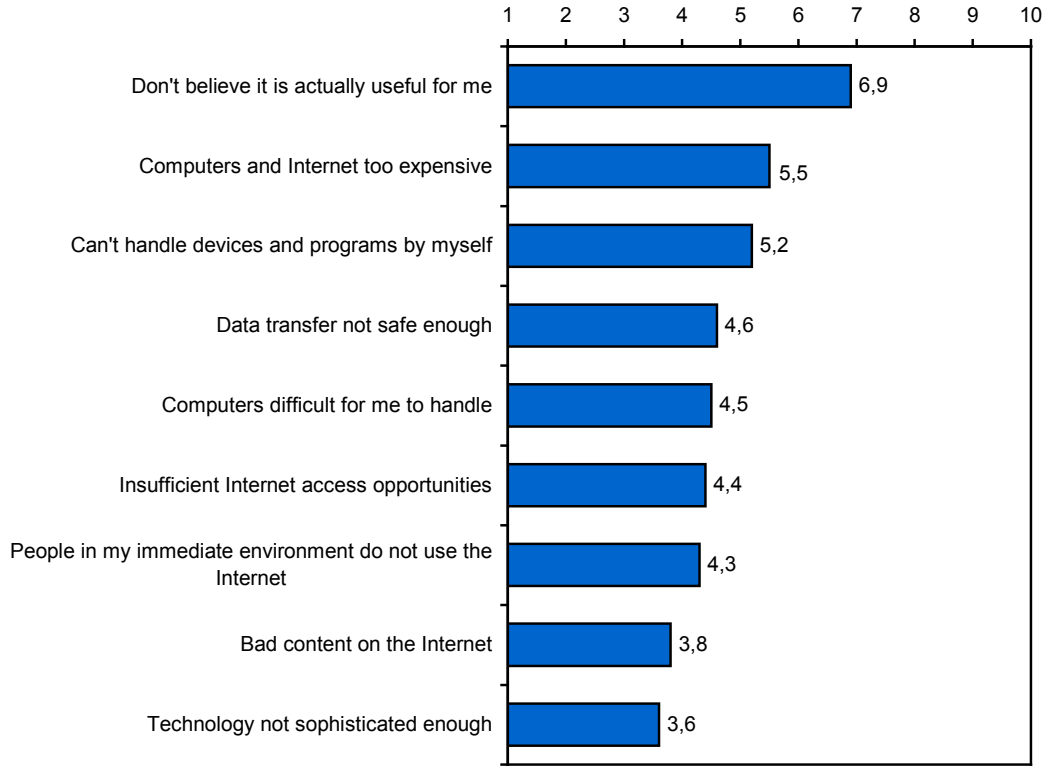
There are three major reasons for potential new users to go online. First, they agreed that they now see an actual benefit in using the Internet (responses averaged 4.0). Responses to the statement that people in their immediate environment use the Internet averaged 3.9 and the statement that it has become easier to work on computers averaged 3.8. In other words: the added values, the social factor and the improved usability positively affect a decision to go online.

2.3 Reasons for individuals not accessing the Internet

People who expect to go online soon are the minority among non-users. 78.8 percent of Internet non-users do not plan to go online. Reasons not to go online reported by non-users are complex.

In Germany as in other WIP countries the individual benefit is particularly unclear to non-users. Costs and usability also rank high. The results are based on the group of non-users that do not plan to go online privately within the next 12 months (n=1,153). Respondents rated the factors on a scale from 1 to 10. 1 means “not applicable to me at all” and 10 means “very applicable to me”.

Figure 2-1 Reasons for non-users, mean 1 - 10



(n=1,183)

The factor "I do not see an actual benefit in using the Internet" (mean 6.9) ranks highest. Over 40 percent of the respondents individually rate this explanation as "very applicable".

Cost is another barrier for Internet usage (mean 5.5), but a glance at the extreme values along the scale shows that this factor polarizes. 22.7 percent say that this argument is "very appropriate" and 22.7 percent of the respondents say that this argument is "not appropriate at all". This seems to be due to significant differences between respondents of several income groups. Cost is also a decisive factor for non-users in urban areas.

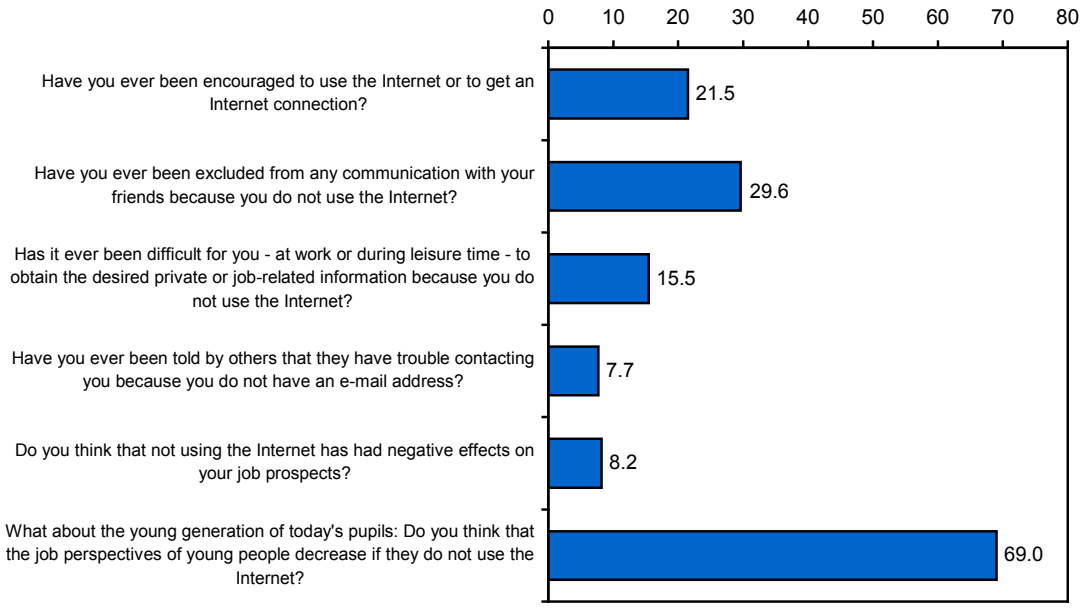
The usability of computers and the Internet ranks third highest as a barrier to Internet usage. Most notably women, older persons and respondents with lower educational level and lower incomes agree with "I can't handle devices and programs by myself" and "Computers are difficult for me to handle".

The security of data traffic (mean 4.5) is another potential barrier. 14.1 percent of non-users rate this argument as "very appropriate". On the other hand 30.1 percent say that it is not correct at all. Respondents regard a lack of public access places, non-users in their immediate environment, the content on the Internet or the state of the technology as less decisive factors as to why they do not access the Internet.

2.4 Experiences of non-users

In addition to the reasons for not using the Internet, the study systematically examines possible effects of being offline on the personal and professional environment. Non-users were asked whether or not non-usage has ever led to any consequences: "Have you ever experienced any of the following situations because you do not use the Internet?"

Figure 2-2 Consequences of non usage, percentage of "yes"-answers



(n=1,412)

The responses show significant differences with regard to diverse population groups. 21.5 percent of non-users have been encouraged to use the Internet or to get connected. Rather male (22.9%), young (36.3%) and highly educated non-users (32.5%) experienced this situation. The same applies to those with a higher monthly income in the household (30.0%) and those who live in urban areas (23.0%).

Nearly one third of non-users have already been unable to follow conversation with friends because they do not use the Internet. Compared to the average (29.6%) more men, younger persons, persons with a higher monthly income and from rural areas have experienced this situation.

Most non-users have never had any problems in obtaining private or job-related information. However, the younger, or more highly educated the respondents are, the more likely they are to answer in the affirmative the question "Has it ever been difficult for you – at work or during leisure time – to obtain the desired private or job-related information because you do not use the Internet?"

Only 7.7 percent of non-users have ever been told by others that they have trouble contacting them due to lack of an e-mail-address. This result is understandable because of the role that telephone and answering machines have in personal 'remote-communication'. Availability via e-mail seems to be an issue only in specific population groups. These population groups are again men, non-users aged 14-19, higher educated and persons with higher income.

There are differences how respondents assess the effects of non-usage on their own career and how they assess the effects on young people's job perspectives. Only 8.2 percent of non-users feel that not using the Internet has had negative effects on their own job prospects. On the other hand 69 percent believe that the job perspectives of young people decrease if they do not use the Internet. Interestingly, only 6.6 percent of the 14-19-year-olds say that non-usage has had negative effects on their own job perspectives and, compared to the average of 69 percent only 60.6 of the young non-users believe that the job perspectives of young people in general decrease due to non-usage.

More German than US American non-users feel that they have been excluded from conversations with friends because they did not use the Internet. However, the overall pressure on non-users to get connected seems to be higher than in Germany. At least more American non-users report that they have been encouraged to use the Internet or to get an Internet connection (US: 44.2 %, D: 21.5 %), that it had been difficult to obtain the desired private or job-related information because of not using the Internet (US: 30.0%, D: 15.5 %) and that they already had been told by others that contacting them was difficult because of lack of an e-mail address (UCLA Center for Communication Policy 2001: 27).

3 Consumer behaviour

Who buys online and why? Has the purchasing behaviour of individuals changed since being online? Do Internet users find differences between purchasing online or shopping in traditional shops? What attitudes do non-users or those who plan to go online soon have towards potential online purchasing? The study shows that E-Commerce has not made a breakthrough in Germany in terms of regular online shopping and that security is a major concern.

3.1 Demographics of Internet purchasers

Almost half of German Internet users have purchased online at least once (48.3 %), but the majority (51.5 %) has no experience of online shopping.

The typical online purchaser is male, has a quite high monthly income and his average age is 38 years. He has a high level of education. The demographic data of an online purchaser is equivalent to those of the typical user, with one exception: more users live, in fact, in urban areas, but only 45.7 percent of those did online purchasing at least once while 51.2 percent of users in rural areas have already purchased online.

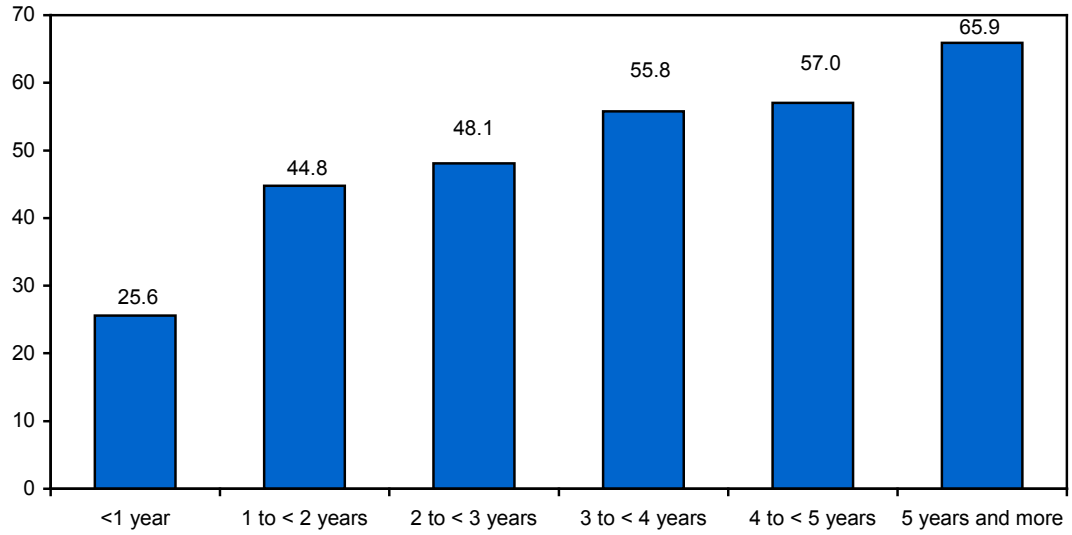
Table 3-1 "Have you ever purchased products or services over the Internet?", percentage and frequency of "yes"-answers

Yes-answers	%	Frequencies
Total	48.3	579
Male	51.2	329
Female	44.9	250
Income < € 1,000	39.3	22
Income € 1.000 -< € 1,500	52.0	49
Income € 1.500 -< € 2,000	44.3	66
Income € 2.000 -< € 2,500	53.7	114
Income > € 2,500	53,4	179
14-19 years	39.2	52
20-29 years	49.9	103
30-39 years	61.5	194
40-49 years	46.5	118
50-59 years	39.6	71
60-69 years	36.5	34
70-75 years	37.3	7
Hauptschule	43.9	141
Realschule/Mittlere Reife	47.8	178
FH-/ Allgemeine Hochschulreife	49.3	162
FH-/ Universitätsabschluss	58.6	67
(rather) urban	45.7	294
(rather) rural	51.2	284

(n=1,200)

The results indicate a close link between Internet experience and online purchasing. Experienced users are more likely to purchase online than new users. Only a quarter of users with less than one year of Internet experience have already bought online, but two-thirds of users with more than five years of Internet experience have bought online.

Figure 3-1 Online purchase and years of Internet experience, percentage of respondents



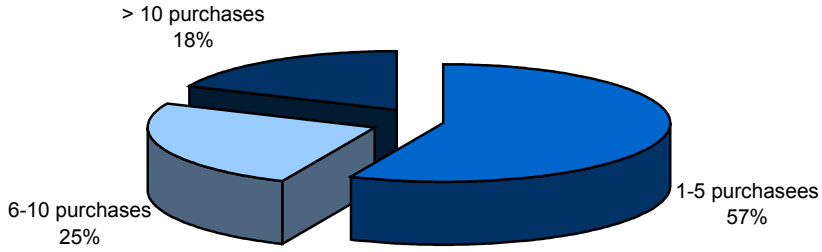
(n=579)

As in Germany, almost half of users (48.9 %) in the USA have already purchased online (UCLA Center for Communication Policy 2001: 37). In other WIP countries however, the share of users having shopped over the Internet is lower: In Italy 22.8 percent of users have purchased online (SDA Bocconi 2001), in Sweden 18 percent (Findahl 2000), in Japan 14.3 percent (Institute of Socio-Information and Communication Studies and Communications Research Laboratory 2002: 85), in Singapur 10.6 percent (Kuo et al. 2002: 32) and in Hungary 6.5 percent (Information Society and Trend Research Institute and Social Research Center Inc. 2001).

3.2 Frequency of Internet purchases

In Germany, most Internet purchasers do not shop online often. Only 13.6 percent of users use the Internet “often” to buy products or services online, 34.2 percent “seldom”. The majority of Internet purchasers buy online one to five times per year, a quarter six to ten times and the minority more than ten times.

Figure 3-2 **"During a typical year, how many times do you purchase products or services over the Internet?"**



(n=579)

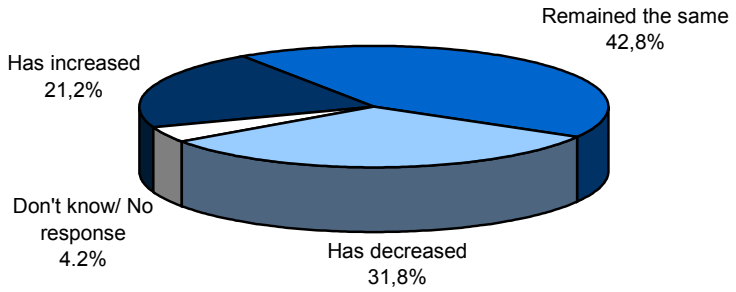
The study demonstrates that the users' Internet experience has effects on the type of usage and the competence in handling the new medium. With Internet experience the Internet becomes an everyday part of life, however only over several years. With regard to consumer behaviour that is to say: the very experienced users among the Internet purchasers are more likely to buy more frequently. 27.7 percent of Internet purchasers with five or more years of Internet experience purchase more than ten times a year.

Regarding the potential of E-commerce in the consumer market the interest of potential new users in buying online is informative. Of those persons who plan to go online within the next 12 months, 30 percent state that they intend to purchase online in future, while two-thirds do not intend to purchase online.

3.3 Internet purchasing and shopping behaviour

The vast majority of Internet purchasers (80.2 %) report that buying online does not affect their overall shopping habits. Approximately 20 percent of those who say that their behaviour has changed (18.5 % of all) think that their amount of shopping in traditional stores has increased, while about 40 percent think, the amount was stable. Approximately 30 percent state that the amount of purchases in traditional shops decreased.

Figure 3-3 Changes of overall shopping habits: "To what extent did the amount of your purchases made offline change?"



(n=107)

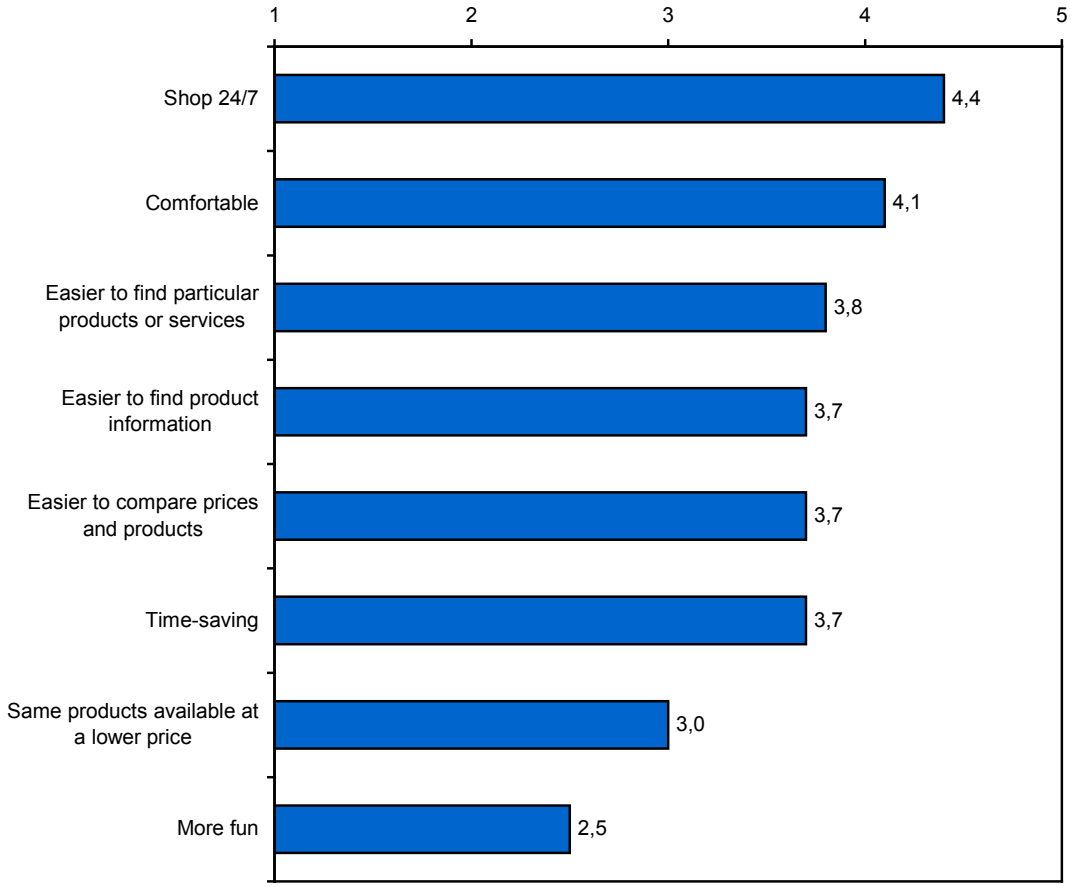
3.4 Attitudes towards Internet purchasing

What are the reasons why people purchase online? Is it fun, is it cheaper or just more convenient? Is the Internet an appropriate instrument for comparing prices and products and do users consider Internet purchasing as safe?

In order to provide a pattern of opinions on decisive factors as to why people purchase online Internet purchasers were asked to rate the individual reasons for purchasing goods and services online. Such decisive factors are: The opportunity to shop day and night, comfort, finding goods and services easily, comparing prices and finding product information simply, as well as saving time.

The majority of users agreed strongly that Internet purchase is possible 24/7 and convenient. Internet purchasers find that it is easier to gather information about specific prices and products online than in retail stores. The "fun-factor" is considered as relatively low. "It is more fun to purchase online than anywhere else" averaged 2.5 on a scale from 1 (not agree at all) to 5 (strongly agree). Users differed about whether or not online prices are lower than in traditional shops.

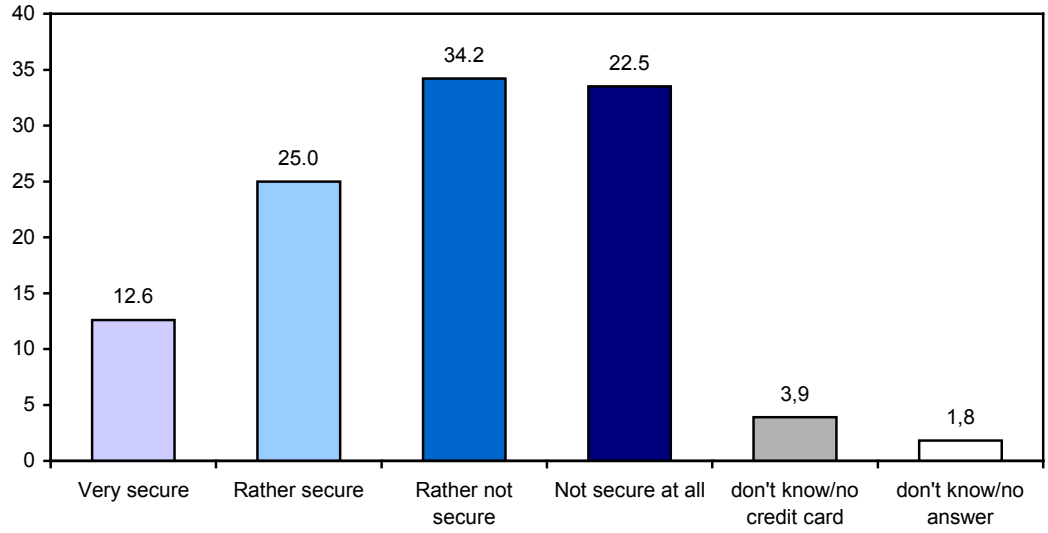
Figure 3-4 Reasons for Internet purchase, mean 1 - 5



(n=579)

Respondents report concerns about the security of Internet purchases. Over half of all Internet shoppers think that paying by credit card via the Internet is rather insecure or very insecure, just one third believe that it is safe.

Figure 3-5 Security of online purchases via credit card: Attitudes of online purchasers, percentage of respondents



(n=579)

New users with less than a year of Internet experience are particularly cautious about this. While among more experienced users 50 percent think that paying by credit card when buying online is insecure, among new users 80 percent hold this view.

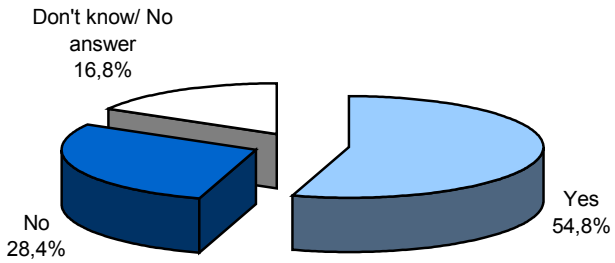
Non-users also report definite concern about Internet purchasing and security. Only 32 percent of non-users (and non-intenders at the same time) say that it is not secure at all to pay online via credit card.

International WIP data shows that concerns about credit card security and protection of personal data are a major issue. 72 percent of Internet users in Sweden fear credit card fraud, 60 percent that personal information might not be protected and 48 percent have objections because it is difficult to assess the quality or product descriptions (Findahl 2001: 39). In Japan, 72.1 percent of Internet users find it problematic to circulate private information (number of credit card, shopping habits, address etc.) (Institute of Socio-Information and Communication Studies and Communications Research Laboratory 2002: 79).

Though the use of credit cards is by far more common in the USA than in Germany, respondents report major concerns. Over 70 percent say that they are very, or extremely, concerned regarding credit card security when purchasing online (UCLA Center for Communication Policy 2001: 53-54).

Non-users in Germany doubt that goods and services would reach them. Asked whether they would be concerned if the products would be delivered to the purchaser, over 50 percent agreed.

Figure 3-6 Concerns about the delivery of products ordered online: Attitudes of non-users*



(n=1.124) *The basis are non-users who do not intend to use the Internet within the next 12 months.

Non-users furthermore report that they would prefer to visit a retail store instead of purchasing online. This lack of 'shopping experience' and the concerns about the payment and the delivery of goods and services seem to be vital barriers for an attractive and secure Internet purchasing environment.

4 Media use and trust

The diffusion of the Internet leads to new challenges for traditional media. It has been discussed whether or not the Internet is replacing the use of other media or the Internet is used as complementary or in addition to traditional media. Another point of interest is the time people spend with Internet activities. Does this time affect the time spent with family and friends or for other leisure time activities? What differences occur between the overall media use of Internet users and non-users?

The study examines the time budget for newspapers, magazines, radio, television and the Internet and in doing so compares users and non-users. The study describes the use of these traditional media via the Internet, e.g. online newspapers. Additionally, is the Internet considered as a more informative medium compared to traditional media and do the users trust what they find online?

4.1 Comparison of media use between users and non-users

The table shows the average time spent on using traditional media and the Internet. Data illustrates that the average time spent on media usage does not differ between users and non-users. It can therefore be assumed that new media is used complementary to, or even parallel to traditional media. Users and non-users split the time budget for the media in different ways. Both users and non-users still spend most of their media time watching television or listening to the radio, however, users spend less time with television and radio than non-users. Internet use is ranked in third place.

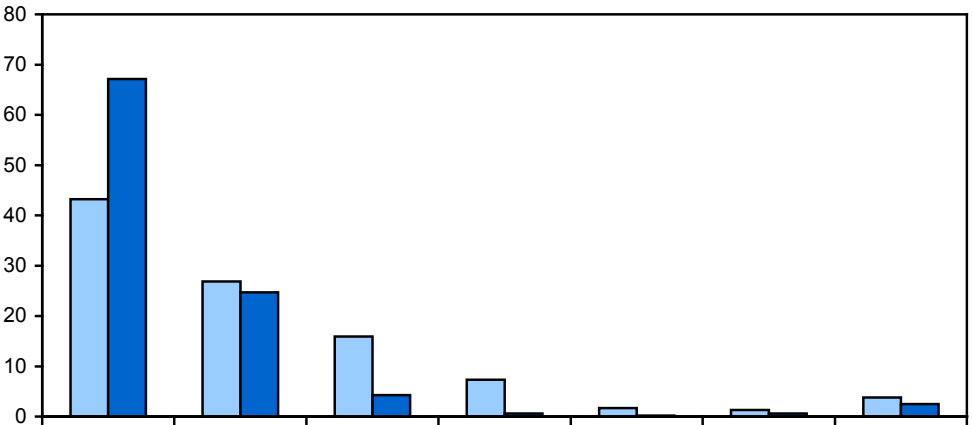
Table 4-1 Media use, minutes per week day

	Average value	
Medium	**Users**	**Non-users**
Reading books	15.0	18.1
Reading newspapers	25.2	31.0
Reading magazines	12.6	14.7
Listening to the radio	151.7	164.2
Watching TV	144.0	193.0
Playing video and computer games	19.2	10.2
Being online	65.7	0
Total media use	**433.4**	**431.2**

(n=2,612)

Thus, complementary media use is rather at the expense of watching TV. The data also indicates that there are more heavy TV users among Internet non-users than among users. 43 percent of users watch 3 or more hours TV during a typical week day, while this applies to 67 percent of non-users.

Figure 4-1 TV use during a typical week day, percentage of respondents



	3 hours and more	2 to < 3 hours	1 to < 2 hours	30 to < 60 minutes	15 to < 30 minutes	< 15 minutes	< 1 minute/ not at all
Users	43,2	26,9	15,9	7,3	1,7	1,3	3,8
Non-users	67,1	24,7	4,3	0,6	0,2	0,6	2,5

(n=2,612)

At the weekend media use is naturally higher than during the week. Interestingly, the media use of Internet users peaks the media use of non-users on Saturdays and Sundays. However, non-users consumption of newspapers, radio and TV exceeds users consumption of these media.

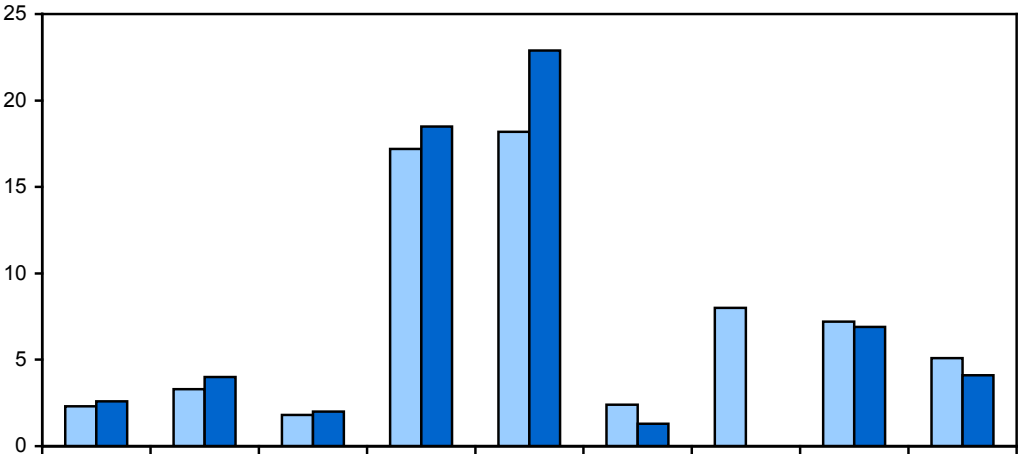
Table 4-2 Media use, minutes per weekend day

	Average value	
Medium	**Users**	**Non-users**
Reading books	31.4	32.2
Reading newspapers	34.9	41.4
Reading magazines	22.8	23.8
Listening to the radio	136.5	144.1
Watching TV	185.1	204.2
Playing video and computer games	25.0	12.2
Being online	76.8	0
Total media use	**512.5**	**457.9**

(n=2,612)

Figure 4-2 summarizes both groups' media use in hours per week supplemented by the time spent on music and phone calls.

Figure 4-2 Media use, hours per week



	Books	Newspapers	Journals/ Magazines	Radio	TV	Video and computer games	Internet	Music	Telephone
Users	2,3	3,3	1,8	17,2	18,2	2,4	8,0	7,2	5,1
Non-users	2,6	4,0	2,0	18,5	22,9	1,3	-	6,9	4,1

(n=2.612)

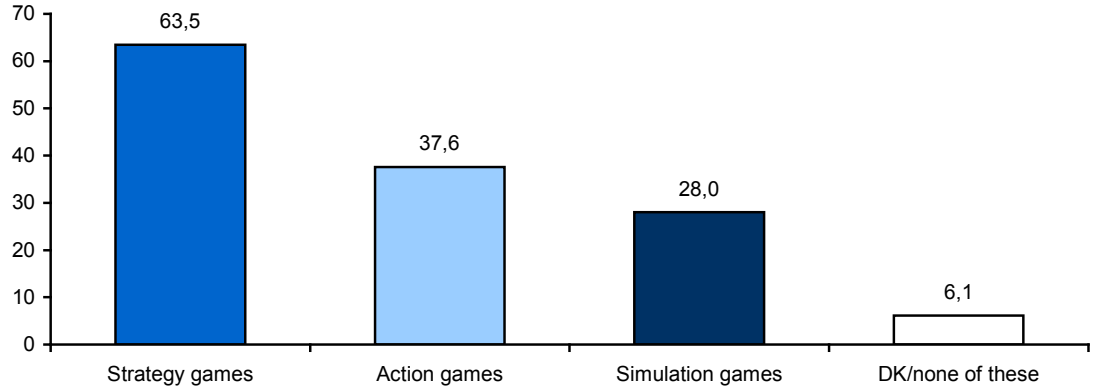
Internet users spend on average 8 hours a week online from home. The results also show that users spend less time with traditional media than non-users, in particular they watch less TV and listen to less radio. On the other hand the users spend more time playing video and computer games, listening to music and talking on the phone.

Interestingly, the differences in the time budget between Internet users and non-users are approximately the same in the USA – independent from the overall level of usage in the country comparison. This is most obvious for TV consumption: In Germany, non-users watch TV 4.7 hours longer compared to users, non-users in the US 4.5 hours. Furthermore, the overall time budget for press, radio, TV, video and computer games and the Internet hardly differs between German and American respondents – it totals circa 50 hours per week. [3]

The share of Internet users playing video and computer games is 31.9 percent. In particular the younger users play more (68 percent of 14-19 year olds). The majority of the respondents playing computer games favour strategy games, followed by action and simulation games.

[3] Own calculations based on UCLA Center for Communication Policy 2001: 33.

Figure 4-3 Favoured computer games of Internet users, percentage of respondents



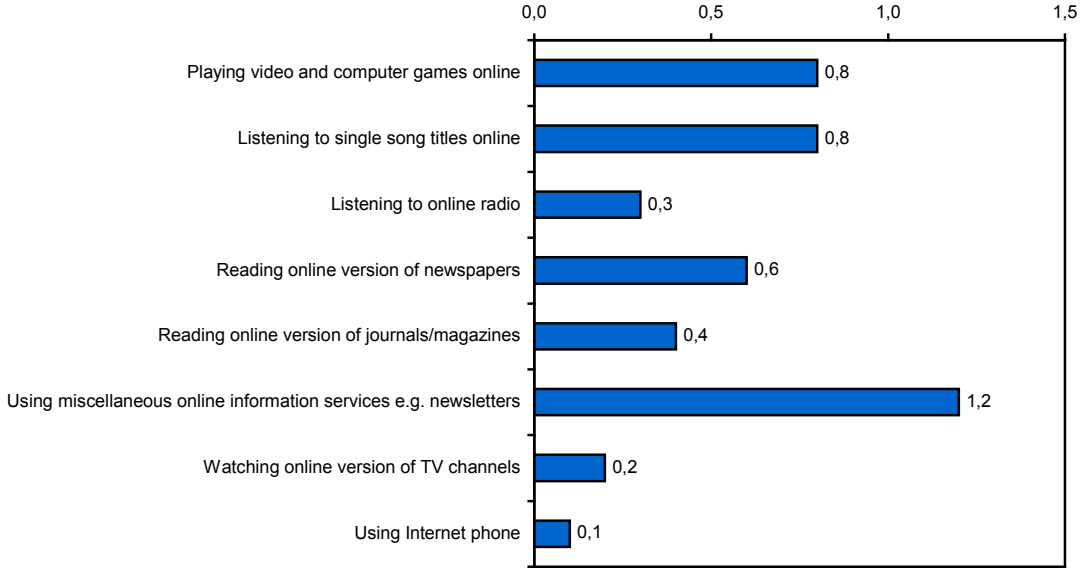
(n=382), multiple answers allowed

4.2 Accessing traditional media online

Some activities previously done offline are now moving onto the Internet, such as playing video games, listening to music or radio, reading newspapers or magazines. But the most frequent online activity is the usage of "online information services" that are not linked to newspapers or broadcasting services. This may also lead to the assumption that the Internet is not replacing traditional media but is complementary to it. Second highest in rank are online video and computer games and listening to single song titles, e.g. via MP3-files.

Compared to typical normal online services, respondents do not use online services provided by traditional media enterprises intensively. Users spend comparatively little time with online services of newspapers, magazines, TV and radio stations as well as on Internet phone.

Figure 4-4 Use of online media services, hours per week

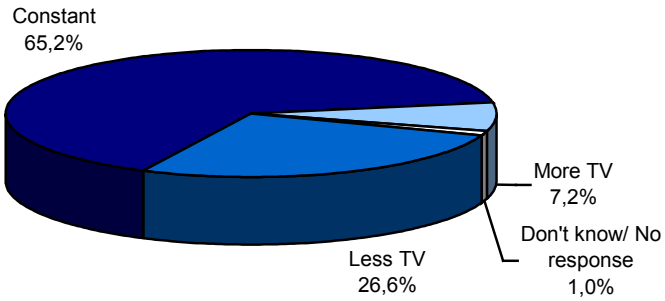


(n=1,200)

4.3 Internet users and television

On average, Internet users watch four hours per week less television than non-users. Respondents were asked to remember how much time they spent watching television before using the Internet. A quarter claim to watch less television than before while ten percent of respondents to watch more television than before. But the majority claims to spend about the same amount of time watching television than before using the Internet.

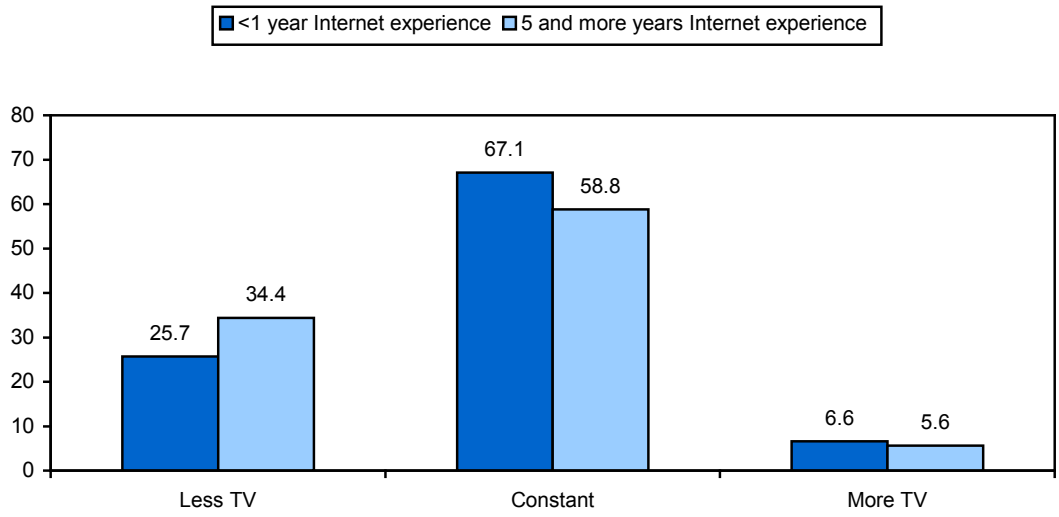
Figure 4-5 "Since you have been using the Internet, do you watch more or less TV, or about the same?"



(n=1,087)

Television viewing decreases as Internet experience increases. Those more experienced than 'new' users report that they watch less TV since they have been using the Internet.

Figure 4-6 Amount of time spent on watching television and Internet experience, percentage of respondents



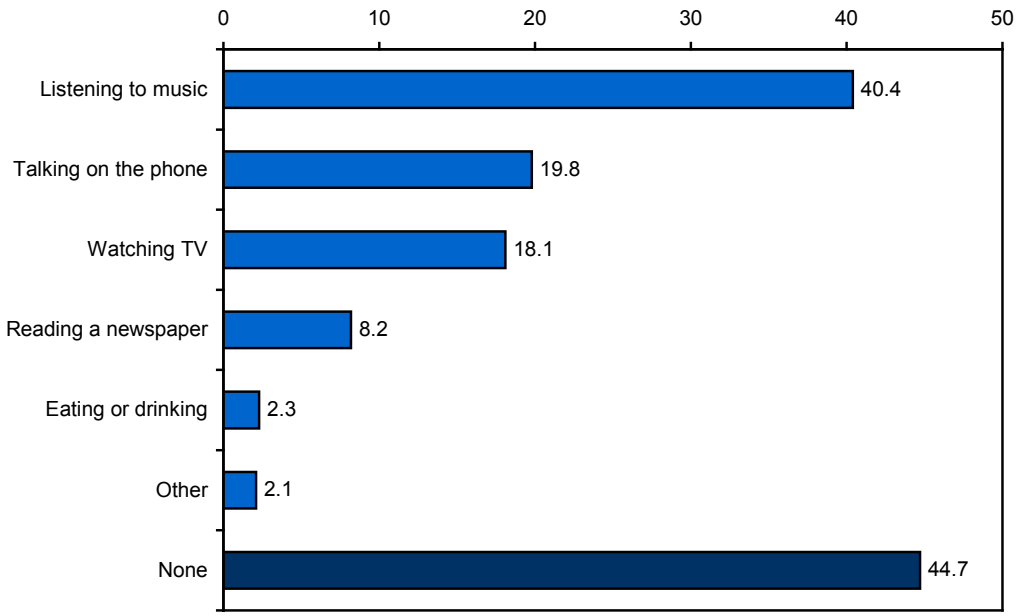
(n=152 users <1 year, 160 users 5 and more years)

The same tendency occurs in the youngest age group. 37.9 percent of 14 to 19 year olds and 32.9 percent of 20 to 29 year olds state that they are watching less television than before using the Internet.

4.4 Internet users and multi-tasking

A significant portion of users are involved in other activities while being online. Over 40 percent of users listen to music while being online, approximately 20 percent of them talk on the phone or watch television simultaneously. Even reading a newspaper is one activity that users are involved in while being online. Roughly half of all users are not involved in another activity while being online.

Figure 4-7 Multi-tasking: Additional activities while being online, percentage of respondents



(n=1,200), multiple answers allowed

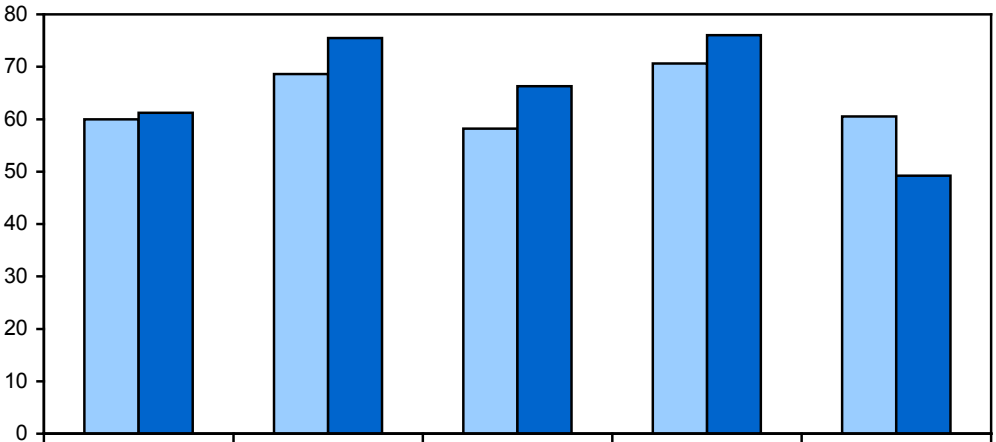
Who are these 'multi-taskers'? Users aged under 30, those with a lower educational level and those located in urban areas are more likely to be involved in parallel activities while online than others.

4.5 The media's role in entertainment and information sourcing

Internet users consider the Internet to be an important source of information, although television and newspapers/magazines are still considered as more relevant. The assessment of users and non-users do not considerably differ, apart from the way they rate the Internet. Users actually state more often than non-users that the Internet is an important informational source. This applies in particular to men, younger people and users with a higher educational and economical background. Non-users rate the traditional media slightly higher than the users as important source of information.

Internet users rated the role of the respective media on a scale, where 1 means not important and 5 means very important. Figure 4-7 illustrates the portion of responses saying "important" (4) and "very important" (5).

Figure 4-8 **Users and non-users: Important sources of information, percentage of respondents**



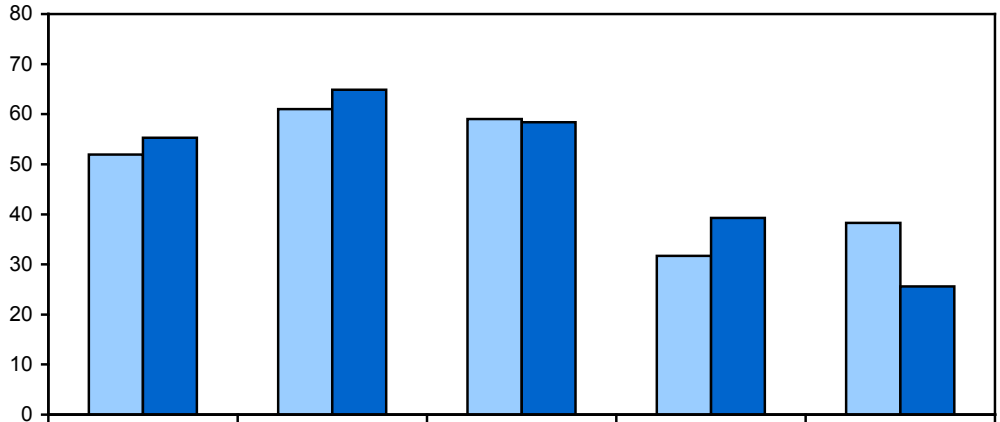
	Books	Television	Radio	Newspapers/ Magazines	Internet
Users	60,0	68,6	58,2	70,6	60,5
Non-users	61,2	75,5	66,3	76,0	49,2

(n=2,612)

The Internet ranks higher than books, television, radio, newspapers, and magazines as an important source of information among very experienced users in the USA (UCLA Center for Communication Policy 2003: 35).

Is the Internet an important source of entertainment as well? To a certain extent, yes, but the importance of the Internet as an entertainment medium lags behind the importance of television, radio, newspapers, magazines and books. More users believe that the Internet is an important entertainment source than non-users, understandably. Television, radio and books rank highest as important sources of entertainment in both groups, users and non-users.

Figure 4-9 **Users and non-users: Important sources of entertainment, percentage of respondents**



	Books	Television	Radio	Newspapers/ Magazines	Internet
Users	51,9	61,0	59,0	31,7	38,3
Non-users	55,3	64,9	58,4	39,3	25,6

(n=2,612)

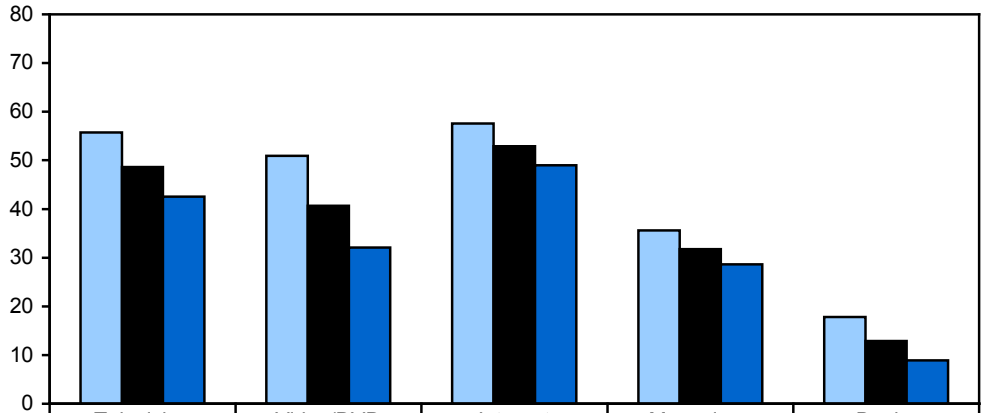
Altogether, the Internet is considered more as a source of information than of entertainment.

4.6 Perception of sexually explicit and violent content in the media

Sexually explicit and violent content in the media is a sensitive topic. Previously, the focus of discussion was mainly on television. The growing diffusion of the Internet and the largely free access to it widens the coverage of debate. Interviewees (as of 18 years and older) were asked not only about their attitudes towards sexually explicit and violent content in the Internet but also in traditional media.

Internet users feel very critical about sexual content on the Internet. 52.9 percent of all users consider the Internet as a medium that contains too much sexually explicit content (52.9 %), followed by television (48.6 %), Video/DVD (40.7 %) and magazines (31.8%). Only 12.9 percent of users consider books as a medium with too much sexual content. The assessment of sexually explicit content in specific media differs clearly by gender: women are more likely to consider more media content as too sexually explicit than are men.

Figure 4-10 "Too much" sexually explicit content in the media, percentage of respondents



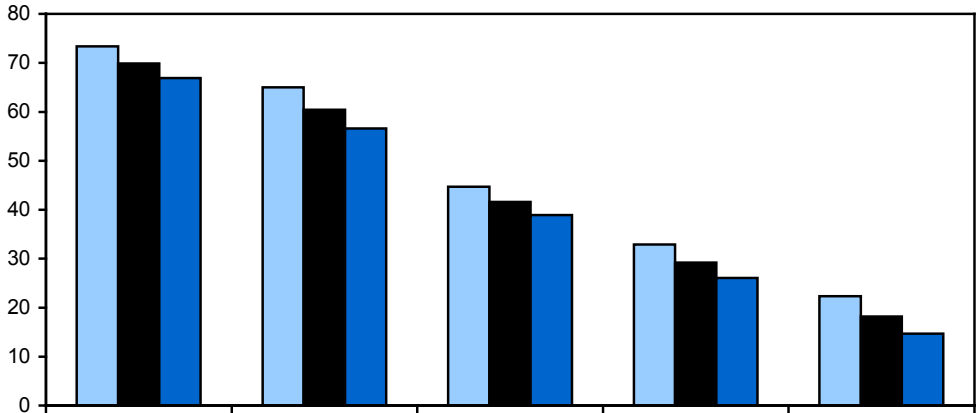
	Television	Video/DVD	Internet	Magazines	Books
Users (f)	55,7	50,9	57,6	35,6	17,8
Users (total)	48,6	40,7	52,9	31,8	12,9
Users (m)	42,5	32,1	49,0	28,6	8,9

(n=1,105 users ≥ 18, 507 female users ≥ 18, 598 male users ≥ 18)

Non-users express even more critical attitudes towards sexually explicit content in the media. Higher percentages say that TV, Video/DVD, magazines and books contain "too much". However, at least at first glance, they seem to be less critical about the Internet. 40.2 percent of non-users say that the Internet has "too much" sexually explicit content. Given that 43 percent of non-users abstained from answering that question, they probably cannot assess Internet content realistically. Therefore, *direct* comparisons between users and non-users on this question are difficult.

A different picture occurs when respondents were asked to express their attitude towards violent content in the media: Only 41.6 percent of all users think that the Internet contains too much violent content, while 69.9 percent believe that television and 60.4 percent believe that video/DVD contain too much violent content. A gender difference occurs as well: generally speaking, women are more concerned about violent content in the media than men.

Figure 4-11 "Too much" violent content in the media, percentage of respondents



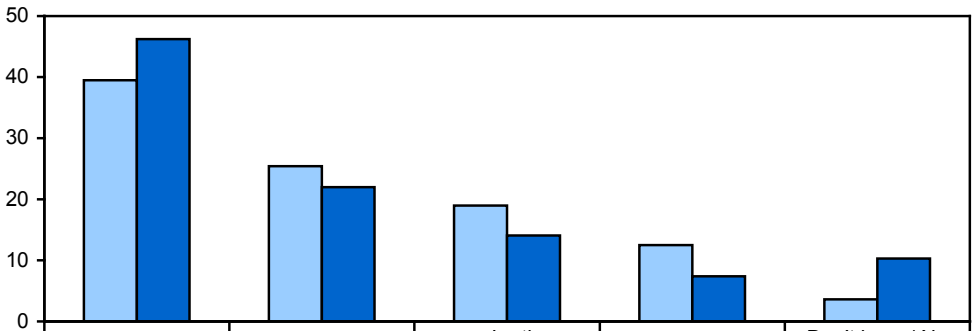
	Television	Video/DVD	Internet	Magazines	Books
Users (f)	73,4	65,0	44,7	32,9	22,3
Users (total)	69,9	60,4	41,6	29,2	18,2
Users (m)	66,9	56,6	38,9	26,1	14,7

(n=1,105 users, 507 female users, 598 male users)

Non-users assess the media very critically in this respect. Over 80 percent think that TV offers "too much" violent content, with the same gender specifics. Again, non-users are reluctant in judging Internet content. 36.6 percent of non-users think that the Internet contains "too much" violent content.

Accordingly, 68.2 percent of non-users approve of the ban of undesirable content in the Internet by the government, 64.9 percent of users share this opinion.

Figure 4-12 Users and non-users: "The government should forbid unwanted content on the Internet", percentage of respondents



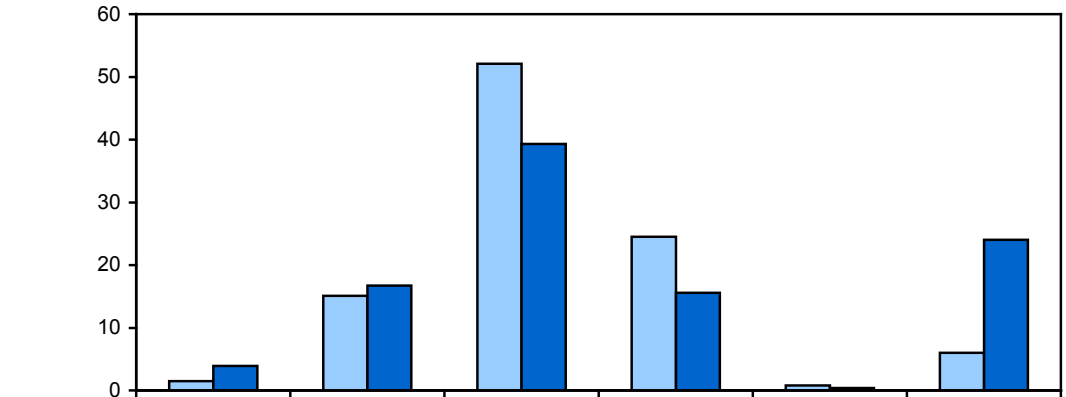
	yes, I agree	yes, I rather agree	no, I rather disagree	no, I disagree	Don't know/ No response
Users	39,5	25,4	19,0	12,5	3,6
Non-users	46,2	22,0	14,1	7,4	10,3

(n=2,612)

4.7 Reliability and Internet content

Only one in five users believe that most of the information online is reliable. But in general, users consider Internet information as more reliable than non-users (only 15.6 percent agree). 52.1 percent of users say that about half of the information on the Internet is reliable and accurate while 16.6 percent think that a small portion or none of the information is reliable. 39.9 percent of non-users believe that half of online information is reliable, while 20.6 percent consider a small amount or none of the available information as reliable and accurate.

Figure 4-13 Users and non-users: "How much of the information on the Internet do you think is reliable and accurate?", percentage of respondents



	None	Some	About half	The majority	All	Don't know/ No response
Users	1,5	15,1	52,1	24,5	0,8	6,0
Non-users	3,9	16,7	39,3	15,6	0,4	24,0

(n=2,612)

It has to be stressed, that the non-users' assessment are largely based on secondary sources (by asking friends or from books or magazines) and image factors, than on their own experiences. This should be taken into account when comparing the attitudes of users and non-users.

Internet users in the USA assess the reliability of Internet content more positively than users in Germany. 36 percent of users says that about half the information on the Internet is reliable and accurate, 58 percent of users that most or all of the information online is reliable and accurate (UCLA Center for Communication Policy 2003: 37).

5 Social and psychological effects

The use of online technology might change attitudes and behaviour, leisure time activities, household life and personal interaction. Furthermore, it may affect a wide range of different social and personal issues including the effect of the Internet and political influence and the Internet at work. The study aims to characterize both groups of Internet users and non-users with respect to these questions.

Differences between users and non-users may not causally be determined by the fact of being online or not, but as well because of demographic differences. Additionally, even if differences may appear quite small, in a longitudinal view, data may suggest a distinction between the two groups and changes over the time.

5.1 The Internet, family and friends

Do users differ from non-users in terms of leisure time activities and in terms of quality and quantity of time spent with family members?

Leisure time activities

Using the Internet does not cut back sport and social activities. On the contrary, Internet users do more sport than non-users, though, it is likely this is related to the fact that the users tend to be younger than non-users.

Table 5-1 Users and non-users: Doing sports, minutes per day

Average value	Users	Non-users
mon- fri	38.8	31.7
sat- sun	48.3	42.5

(n=2,612)

Internet users on average estimate the time spent with friends as 83 minutes per weekday while non-users estimate 87 minutes per weekday spent with friends

Table 5-2 Users and non-users: Being in direct company with friends, minutes per day

Average value	Users	Non-users
mon- fri.	82.6	86.6
sat- sun.	174.3	156.3

(n=2,612)

Household time together

On average, Internet users spend less time with family or household members than non-users (292 minutes per day vs. 240 minutes per day).

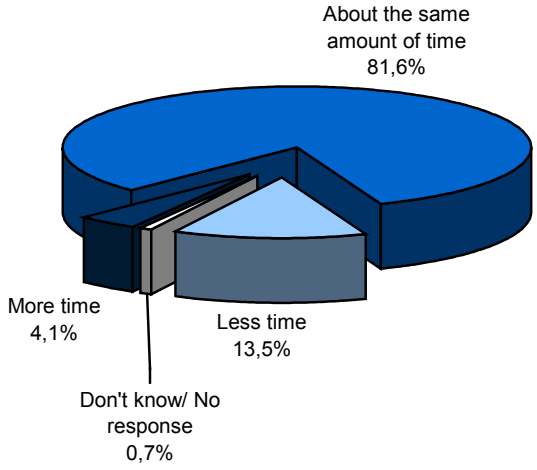
Table 5-3 Users and non-users: Being with family and household members, minutes per day

Average value	Users	Non-users
mon- fri.	240.3	292.2
sat- sun.	350.7	398.0

(n=2,612)

About 80 percent of all Internet users believe that the Internet has no influence on the amount of time they spend together with household members.

Figure 5-1 "Would you say that, since being connected to the Internet at home, do you spend more, less or about the same amount of time with the other members of your household?"



(n=961)

Internet use and family life

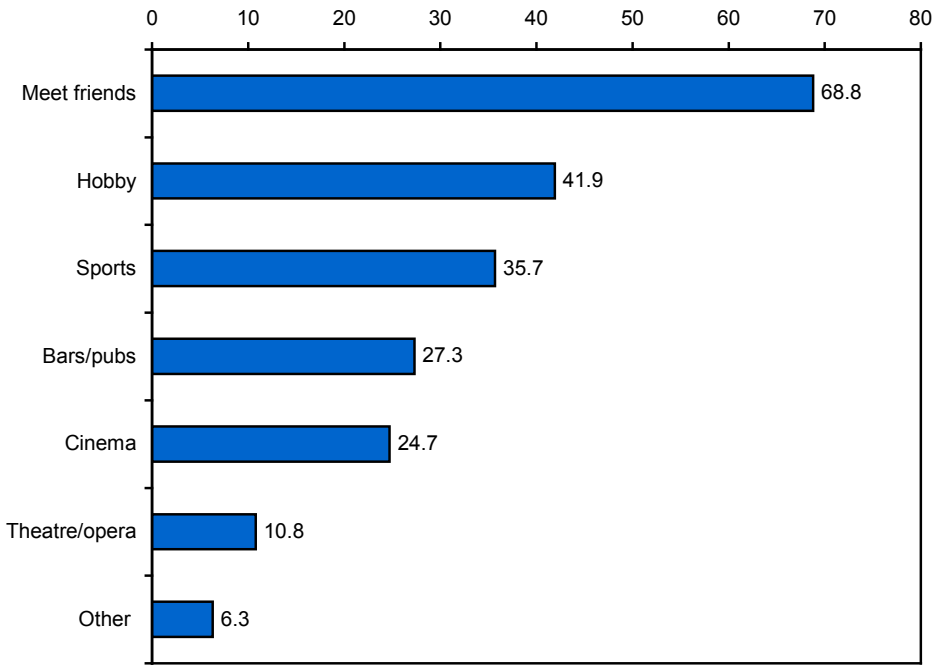
Apparently, Internet usage has no significant influence on family life. Users and non-users were asked several questions in terms of interaction and communication with family members. Non-users value the quality of family interaction slightly more positively than the users.

- Both users (64.4%) and non-users (67.8%) think that most people can discuss and solve problems in a satisfying way at home.
- The great majority of users (88.1%) and non-users (86.2%) think that they can talk frankly to most of the people in their household if problems occur.
- Both users (69.7%) and non-users (68.0%) think that it is difficult for most people if their different life styles and desires clash within one's family household.

- More non-users (60.1%) than non-users (56.2%) think that most people are satisfied with the way feelings and concerns are treated in their homes.
- Both users (82.1%) and non-users (80.8%) think that most people would like to spend more time with the people that they are living with.

57.2 percent of non-users spend their leisure time at home rather than anywhere else. If they choose to go out, they spend their time doing the following activities:

Figure 5-2 Non-users: Recreational activities not at home, percentage of respondents

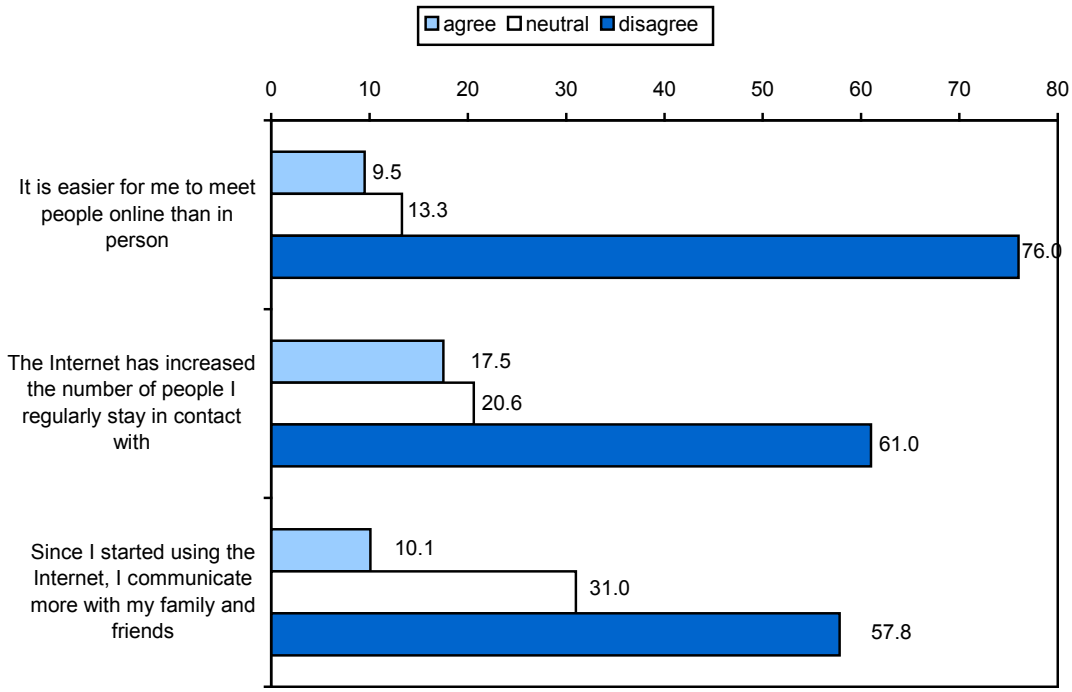


(n=458)

5.2 The impact of the Internet on social contacts

It seems that Internet usage has no significant impact on how and how often users get in contact with other people. Only 10 percent of users agree that it is easier to meet someone online than in person. 61 percent do not agree that the number of people one gets in contact with has increased since being online.

Figure 5-3 Importance of the Internet for social contacts, percentage of respondents



(n=1,200)

Users were also asked whether or not the contact with different social groups (persons with whom one shares leisure time activities, political interests or religious activities, family and friends, persons with completely different interests and colleagues), has changed since using the Internet. The percentage of persons who report a decreased amount of contacts outweighs the percentage of persons who think their amount of contacts has increased since being online. But the vast majority of users state that there has been no change in the amount of contacts since their Internet experience – with one exception: 15 percent of users report that contact with colleagues has increased since using the Internet.

Table 5-4 Contact to different social groups, percentage of respondents

	Users
People you share hobbies and recreational activities with	
Contact decreased	9.6
Contact remained the same	84.2
Contact increased	5.7
People you share political interests with	
Contact decreased	13.4
Contact remained the same	79.9
Contact increased	4.4
People you share religious activities with	
Contact decreased	14.5
Contact remained the same	78.3
Contact increased	2.5
Family and friends	
Contact decreased	8.0
Contact remained the same	79.8
Contact increased	11.4
People with completely different interests	
Contact decreased	13.4
Contact remained the same	78.5
Contact increased	6.4
Colleagues	
Contact decreased	10.3
Contact remained the same	73.1
Contact increased	15.3

(n=1,200), Colleagues (n=801, employed Internet users)

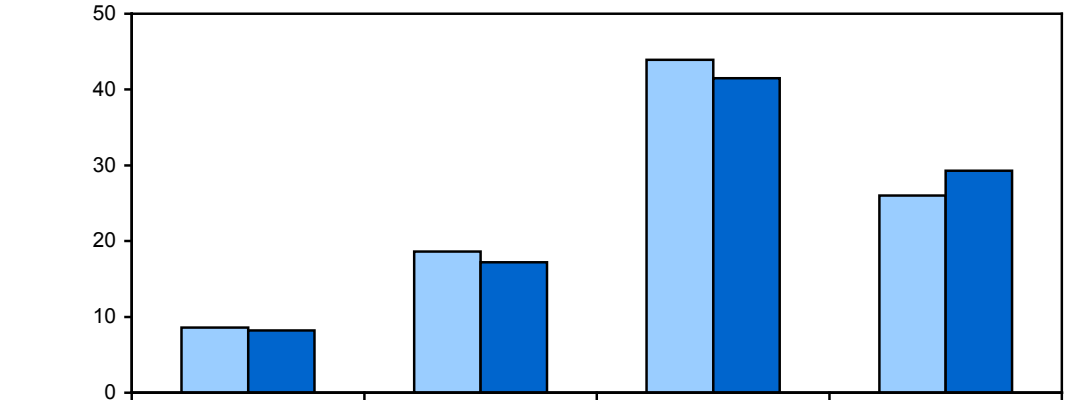
However, these figures are low in comparison to Singapore, where 45 percent of users report that they have more contact with colleagues and 41 percent that contact has increased with persons they share leisure time activities with (Kuo et al. 2002: 39).

5.3 Privacy online

The UCLA found in their WIP studies that both users *and* non-users are concerned regarding the protection of the private sphere and find that privacy is at risk when going online. In Germany, privacy is also a major issue. Most respondents tend to assess new technologies negatively with respect to privacy. Both, users (49.5 %) as well as non-users (60.1 %) express considerable concern that using new technologies lead inevitably to a loss of individual privacy. Accordingly, users in Germany are careful with personal and intimate information. 85.6 percent of users disagree with the statement "On the Internet, I share intimate details of my life that I would generally not reveal in person."

As more personal data is gathered for electronic marketing and financial records, private businesses are seen as a potential threat to personal privacy. About 70 percent of both groups are somewhat or highly concerned that businesses may possibly violate data security regulations.

Figure 5-4 **Users and non-users: Concern about compliance of data security in businesses, percentage of respondents**

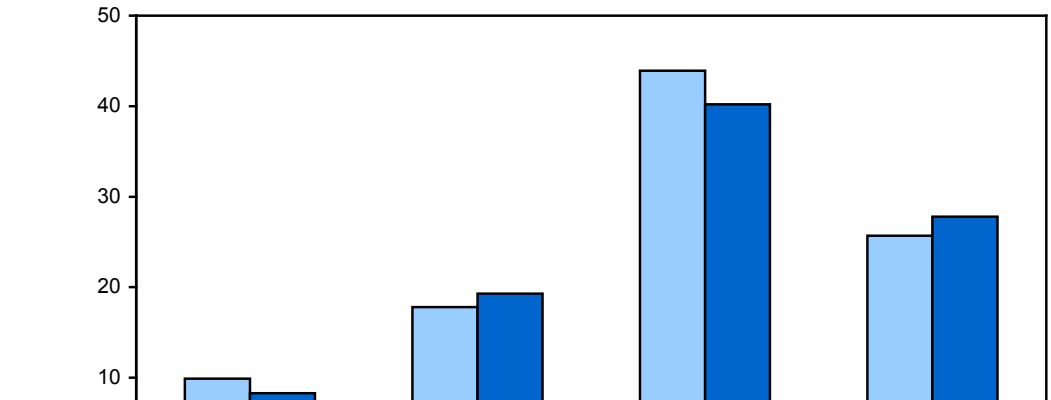


	Not concerned at all	Not really concerned	Somewhat concerned	Very concerned
User	8,6	18,6	43,9	26,0
Non- user	8,2	17,2	41,5	29,3

(n=2,612)

Trust in state-run institutions is almost as low as in businesses. 68 percent of non-users and 69.6 percent of users are somewhat or highly concerned that public authorities may not maintain the privacy of personal information.

Figure 5-5 **Users and non-users: Concern about compliance of data security in state-run institutions, percentage of respondents**



	Not concerned at all	Not really concerned	Somewhat concerned	Very concerned
Users	9,9	17,8	43,9	25,7
Non-users	8,3	19,3	40,2	27,8

(n=2,612)

The great mistrust of people in terms of security and privacy is a considerable barrier for the implementation of applications of e-government. In this respect, the findings are alarming as the German government committed itself to make available public services online by 2005.

5.4 The Internet and social attitude

Respondents were asked to value their social surroundings.

- Compared to non-users (67.2 %), Internet users (63.0 %) are slightly less likely to think that people in general feel frequently lonely.
- Approximately half of both groups believe that most people are not satisfied with their lives.
- Only one in three agree that the average citizen can influence the government's decisions.
- In relation to the statement above, about 65 percent of interviewees state that influencing great social events is just a pipe dream.
- More non-users (40.5 %) than users (35 %) fear that with new technologies people's existing knowledge will become useless.
- A very high percentage of both groups (approx. 90 %) support freedom of speech.
- 19.8 percent of users and 23.9 percent of non-users identified a higher level of propensity to violence in their personal environment.

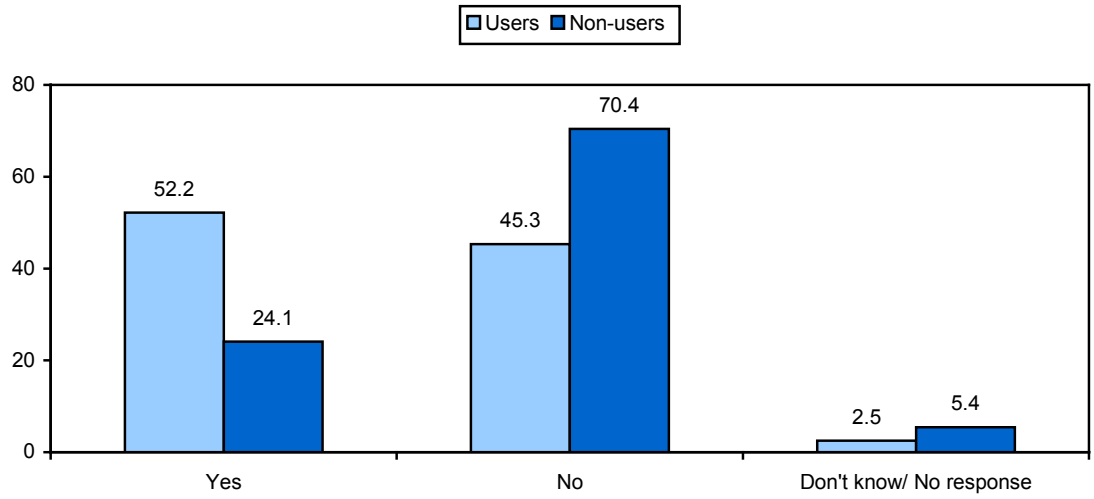
5.5 Internet, political power and influence

The Internet is not considered as a tool to help gain political power. 29 percent of respondents believe that the Internet helps to support stronger participation in political decisions. Though users are slightly more optimistic than non-users (34% vs. 25%).

In other WIP countries, respondents are even more reluctant in this respect. Only 20.9 percent of American respondents (UCLA Center for Communication Policy 2001: 83 and 12 percent of Swedish respondents (Findahl 2000: 37). agree that the Internet can enable citizens to take part more actively in political decision making. In China respondents believe that the Internet helps people to better understand politics, to express their opinions or to criticise governmental officials (Center for Social Development, Chinese Academy of Social Sciences 2000: 12).

In Germany, more than half of users, but only a quarter of non-users would vote online at parliamentary elections, if possible.

Figure 5-6 Parliamentary elections over the Internet if possible?, percentage of respondents

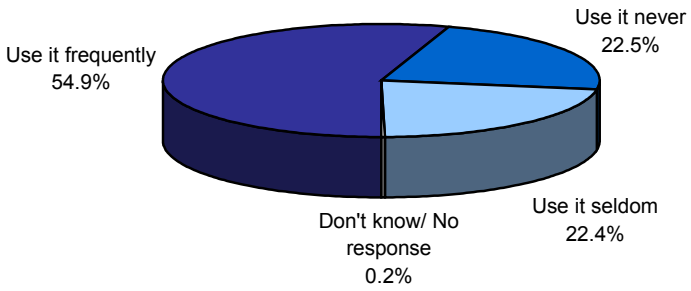


(n=2,612)

5.6 The Internet at work

Most employed users are frequently online at work, while 22.5 percent of users say that they never use the Internet at their workplace.

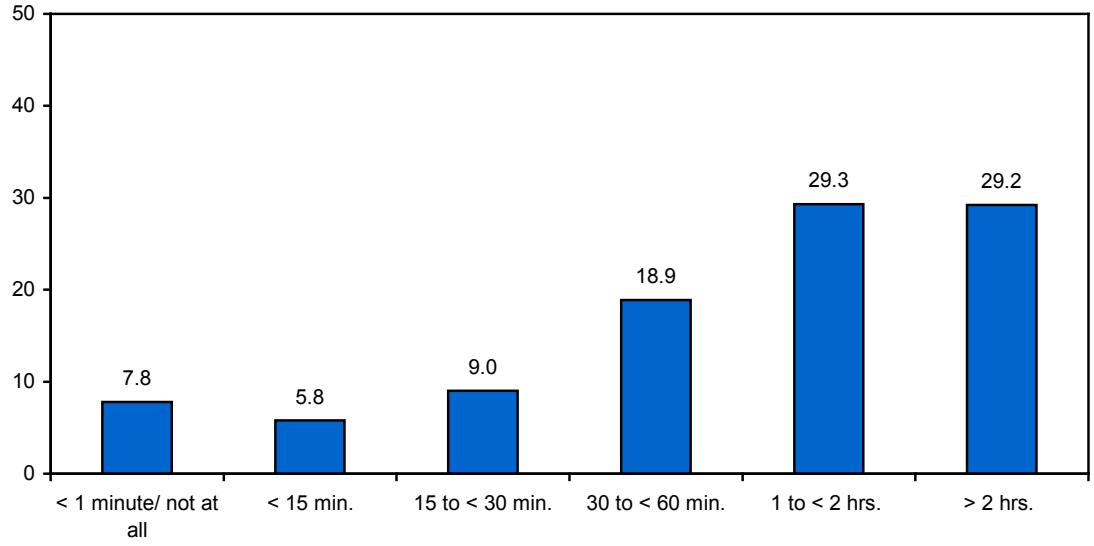
Figure 5-7 Internet use at workplace



(n=801)

The average budget of time spent online at work amounts to approximately eight hours per week or 89 minutes per day, respectively.

Figure 5-8 **Average active Internet usage per weekday (mon - fri) at workplace, percentage of respondents**

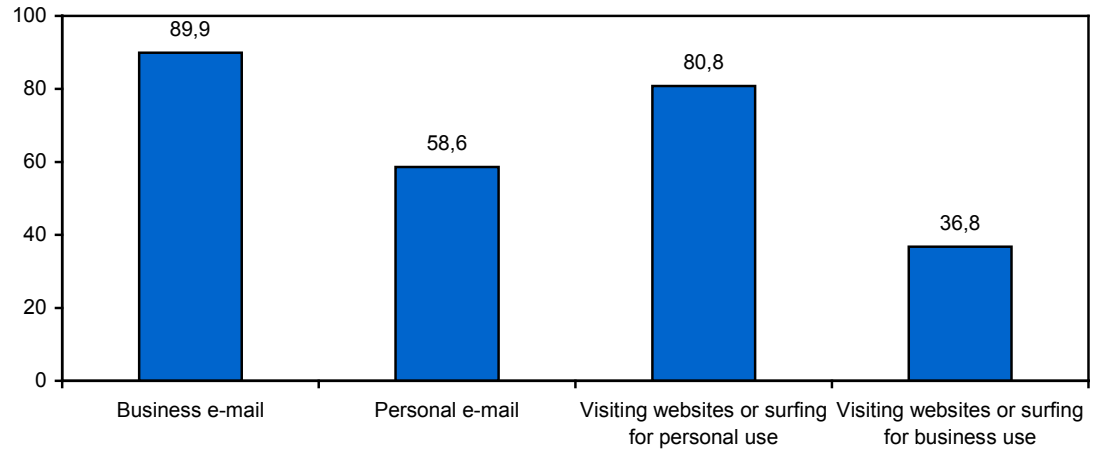


(n=464)

While employers think positively about the role of the Internet and e-mail in terms of research, information gathering and marketing, productivity and the potential abuse of online services in the workplace is frequently under discussion. Monitoring e-mail and Internet use remain an issue for both management and employees.

Almost 90 percent of employees use business e-mail at work and almost 60 percent use personal e-mail as well.

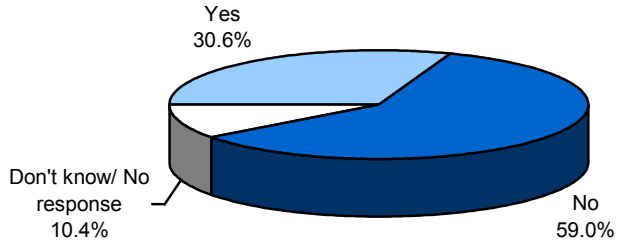
Figure 5-9 **Business and personal usage of Internet at workplace, percentage of respondents**



(n=430)

Every third employee assumes that management monitors e-mail content or the usage of the World Wide Web in the workplace. 23.7 percent of those assume that quite a rigorous monitoring takes place.

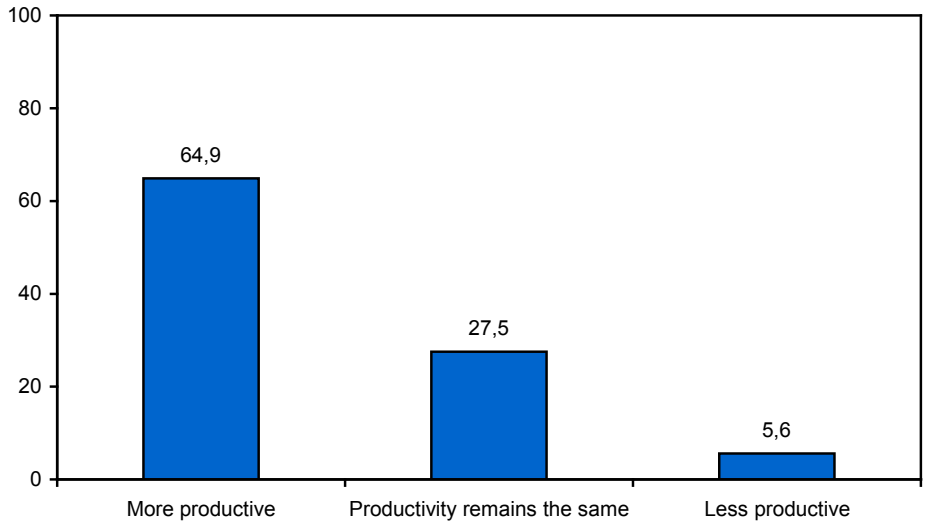
Figure 5-10 Monitoring of Internet usage by management



(n=430)

Does using the Internet at work make you more productive? 64.9 percent of employees say yes. Only 5.6 percent think that they are less productive since being online at work.

Figure 5-11 Internet usage: Effect on work productivity, percentage of respondents



(n=430)

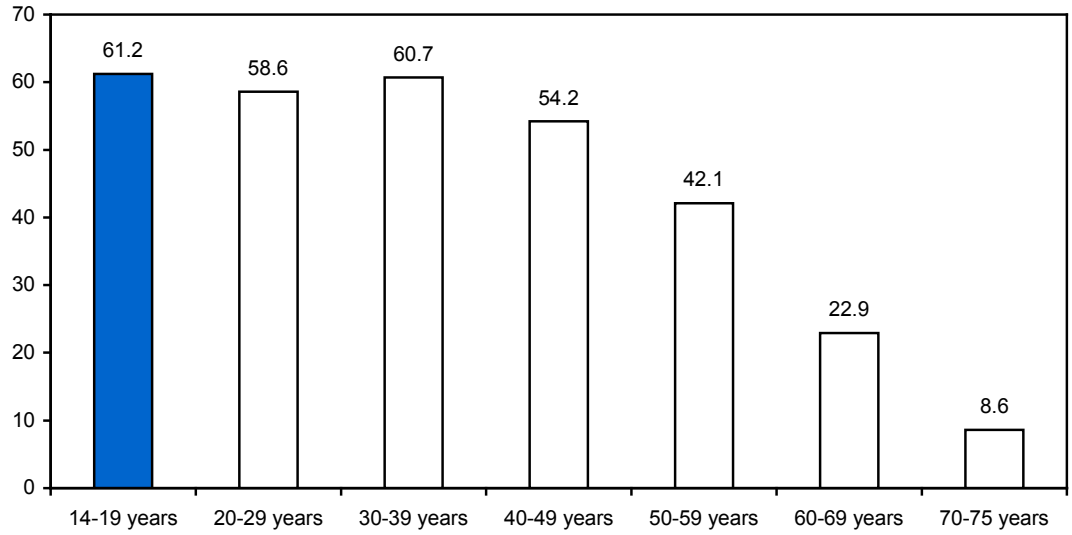
6 Special: Young people and the Internet

The section on youth and the Internet focuses on the impact of traditional media and online media on the everyday life of young people, aged 14 to 19. How many of them are online? How much time do they spend online? Has the usage of traditional media changed since being online and do young people use the Internet in a different way from adults? What do teenagers think about their media literacy? And what are the attitudes of the parents towards monitoring tools?

6.1 Young people online and offline

Young people are more likely to be online than any other age group in Germany. 61.2 percent of the youth is online compared to 45.9 percent of the overall average. And 30.5 percent of young non-users are prepared to go online within the next twelve months (compared to 17.5% of the average of non-users).

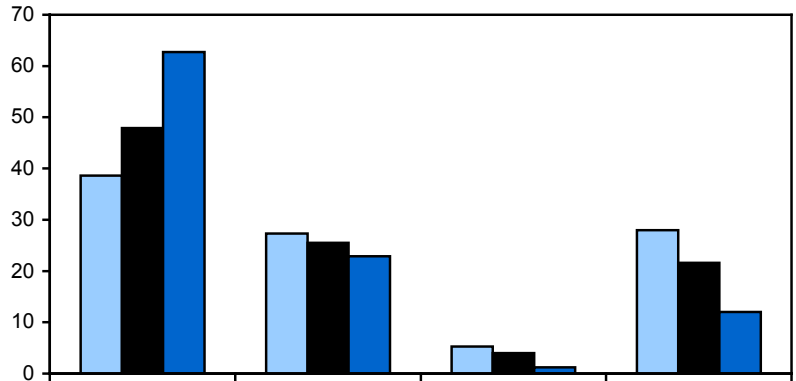
Figure 6-1 Portion of users within age groups, percentage of respondents



(n=2,612)

Dividing the young users by gender shows no difference. Educational factors show that the higher the educational level, the more likely a young person is to be online.

Figure 6-2 **Young users and non-users: Educational levels in comparison with the average national scale of the youth, percentage of respondents**



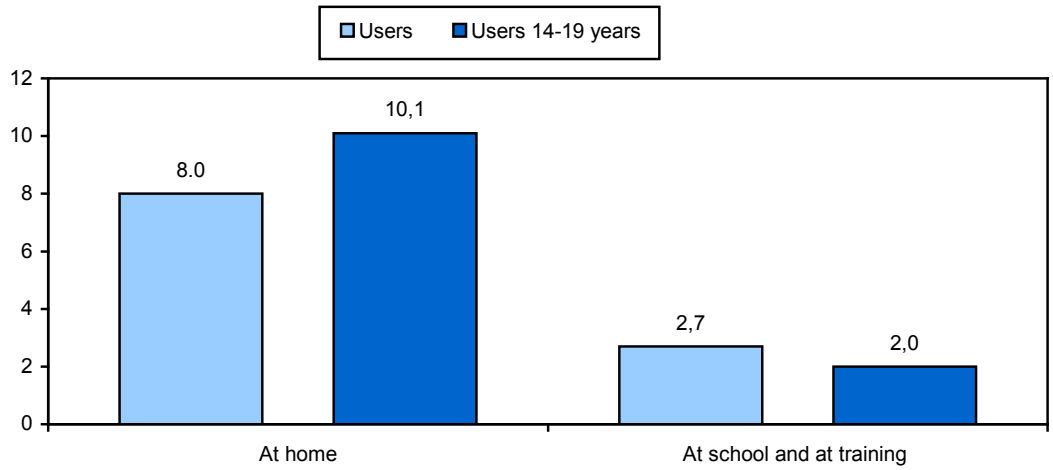
	Hauptschule	Realschule	FHR/ Allgemeine Hochschulreife	Still in school/ No graduation
Users 14-19 years	38,6	27,3	5,3	28,0
Average national scale 14-19 years	47,9	25,5	4,0	21,6
Non-users 14-19 years	62,7	22,9	1,2	12,0

(n=215)

6.2 Online activities

The main activities of young users online are personal. They spend more time accessing the Internet at home than in school or any other educational institution than the average user.

Figure 6-3 **Average users and young users: Internet usage in hours per week (at school and training and at home), percentage of respondents**



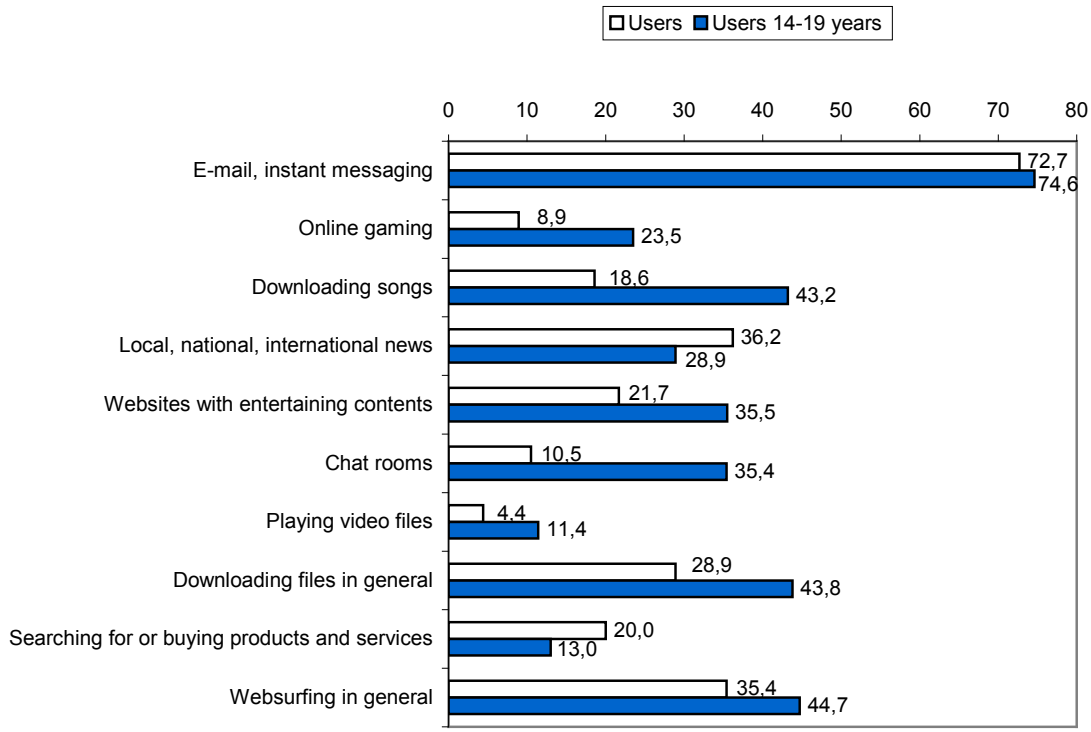
(at home: n=1,200 users, n=132 users 14-19 years; school & training: n=189 users in training, n=105 users in training 14-19 years)

Only 35.6 percent of teenage users access the Internet frequently for their homework, 43.4 percent use the Internet rarely for school research and 20.1 percent say that they never use the Internet for homework. But 71.3 percent of pupils state that the Internet is employed as an educational tool school.

Young users are heavy users: 30.1 claim to use the Internet on an average week day for two hours or longer while only 22.7 percent of all users spend so much time online. The percentage of young users who spend two hours or more surfing the Internet increases during weekends to 45.1 percent.

The main online activity of the youth is receiving and sending e-mails and accessing instant messaging, which corresponds with the top online activity of the average of total users. The next most popular activities respectively are general web surfing, general downloading of data, downloading of music and using entertainment services. Young users are also more likely to play online games and to use chat rooms than the average user, who prefers reading local, regional and international news, doing online research, general web surfing and general downloading of data.

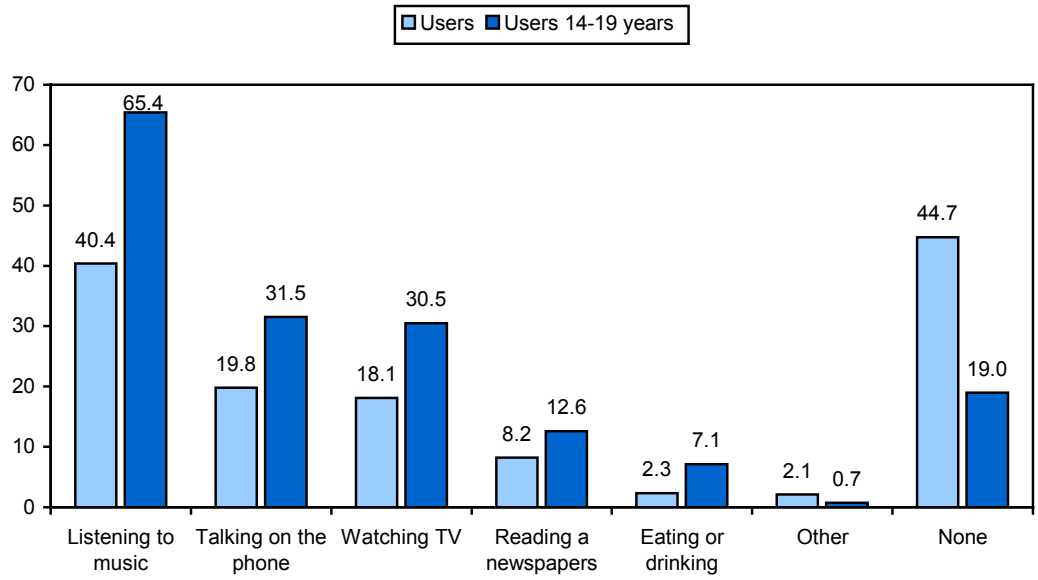
Figure 6-4 Average users and young users: The most popular online activities, percentage of respondents



(n=1,200 users, n=132 users 14-19 years)

Young people are much more involved in other activities while online than any other age group. In other words: the minority are *only* online. 19 percent of online teenagers solely, say that they are not involved in any other activity while being online while the overall average of is 44.7 percent

Figure 6-5 Average users and young users: Multi-tasking, percentage of respondents



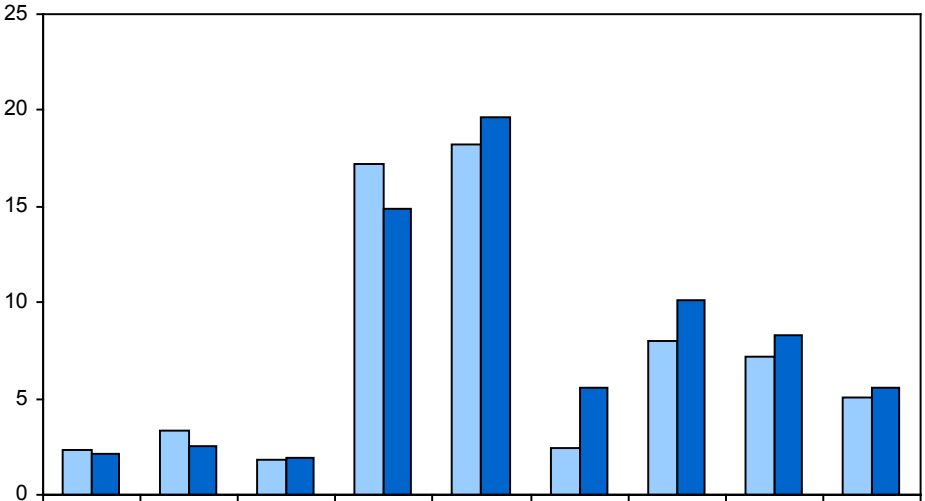
(n=1,200 users, n=132 users 14-19 years)

Apparently, there are fundamental differences between behaviour online and the media use of average users and young people.

6.3 Usage and impact of online and traditional media

A notable difference between young users and average users in terms of media consumption occurs with regard to the amount of time spent playing video and computer games and accessing the Internet. Teenage users spend about 45 minutes per day playing video and computer games (others 19 minutes) and 80 minutes online (others 66 minutes). But the young spend less time than the average reading newspapers or listening to the radio. In summary, the average daily amount of time spent using media is 20 minutes higher than those of all users (not including listening to music and making telephone calls).

Figure 6-6 Average users and young users: Media usage, hours per week

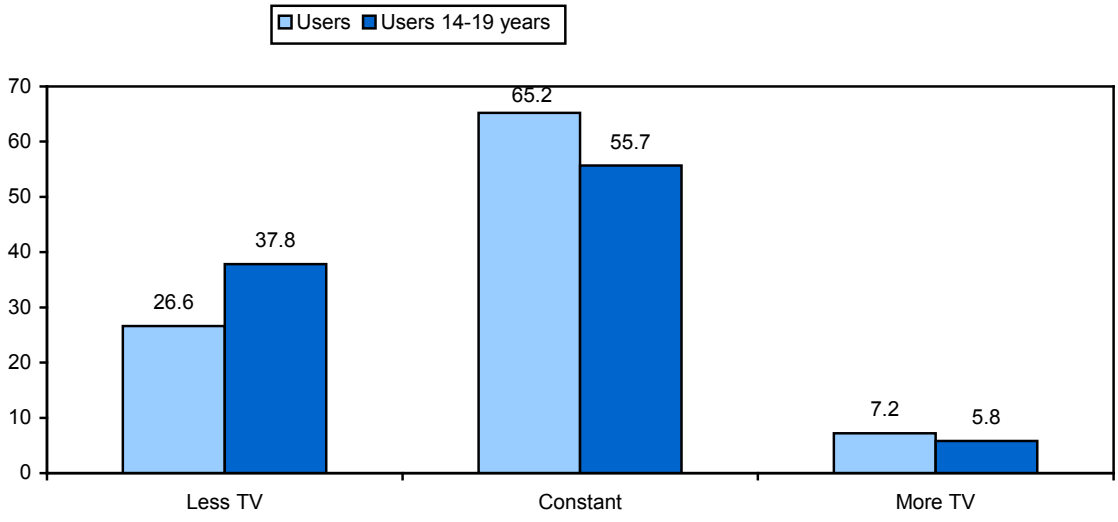


	Books	News-papers	Magazines	Radio	TV	Video and computer games	Internet	Music	Telephone
Users	2,3	3,3	1,8	17,2	18,2	2,4	8,0	7,2	5,1
Users 14-19 years	2,1	2,5	1,9	14,9	19,6	5,6	10,1	8,3	5,6

(n=1.200 users, n=132 users 14-19 years)

Accessing the Internet tends to impact on television viewing of young people. One in three of the 14 to 19 years olds believes they watch less television since being online, the average value was 26 percent.

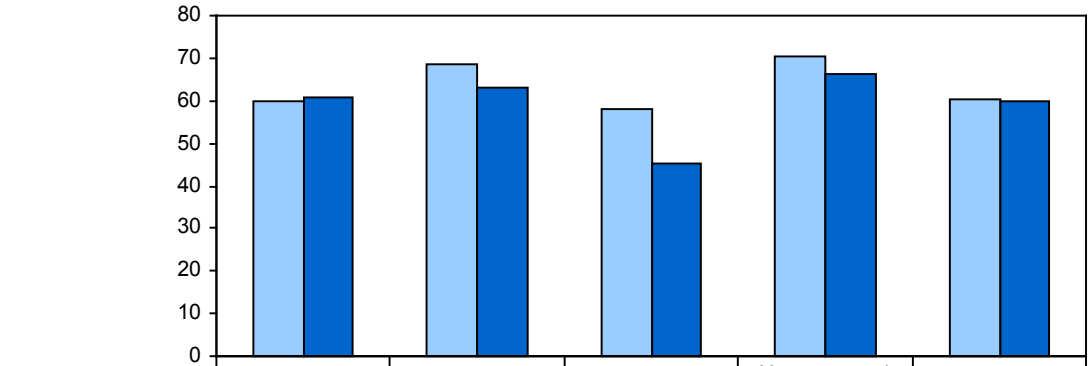
Figure 6-7 Average users and young users: Time spent watching television since being online, percentage of respondents



(n=1,200 users, 125 users 14-19 years, using the Internet at home)

Generally speaking, young users consider television, radio, newspapers, magazines and the Internet as slightly less important as sources of information than do users in general.

Figure 6-8 **Average users and young users: Important sources of information, percentage of respondents**

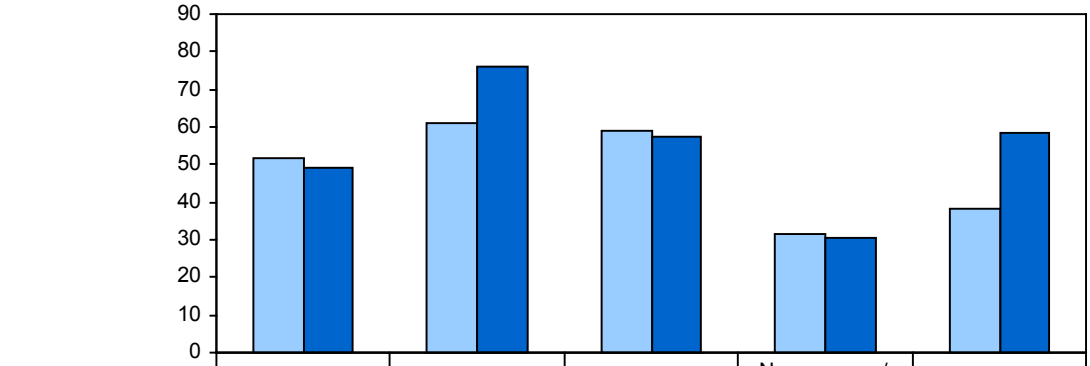


	Books	Television	Radio	New spapers/ Magazines	Internet
Users	60,0	68,6	58,2	70,6	60,5
Users 14-19 years	60,7	63,0	45,4	66,1	60,1

(n=1,200 users, n=132 users 14-19 years)

In contrast to the average user, who considers the Internet rather as a source of information than of entertainment, is the attitude of young users: 58.3 percent of the youth believes the Internet is important or very important for entertainment (compared to 38.3 percent of the average).

Figure 6-9 **Average users and young users: Important sources of entertainment, percentage of respondents**



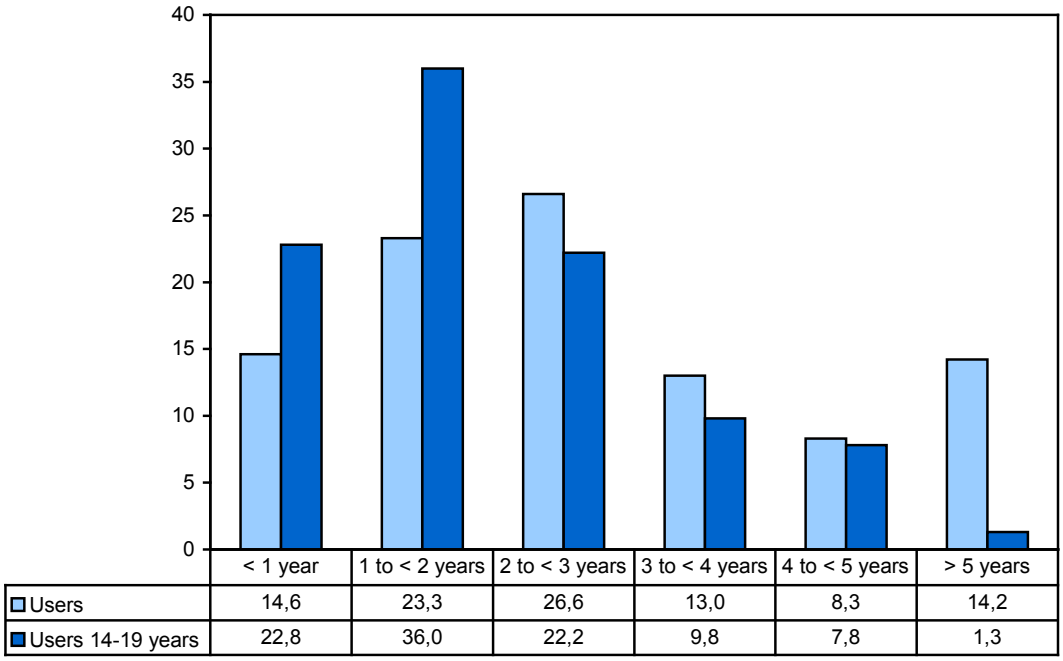
	Books	Television	Radio	New spapers/ Magazines	Internet
Users	51,9	61,0	59,0	31,7	38,3
Users 14-19 years	49,2	76,2	57,5	30,7	58,3

(n=1.200 users, n= 132 users 14- 19 years)

6.4 Online experience and competence

The minority of young users consider themselves as are very experienced online. Almost 60 percent say they have been online for less than two years and 22.8 percent for less than one year. Only 1.3 percent have five years and more of Internet experience compared to 14.2 percent of the average users.

Figure 6-10 Average users and young users: Years of online experience, percentage of respondents



	< 1 year	1 to < 2 years	2 to < 3 years	3 to < 4 years	4 to < 5 years	> 5 years
Users	14,6	23,3	26,6	13,0	8,3	14,2
Users 14-19 years	22,8	36,0	22,2	9,8	7,8	1,3

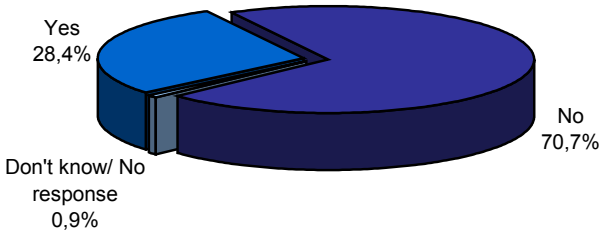
(n=1.200 users, n=132 users 14-19 years)

Nevertheless, young users rate their ability to use the Internet quite highly. Two thirds of the young users believe their ability is better than that of their parents.

6.5 Children and Internet monitoring

Almost three quarters of parents say they do not control their children's or teenager's use of the Internet.

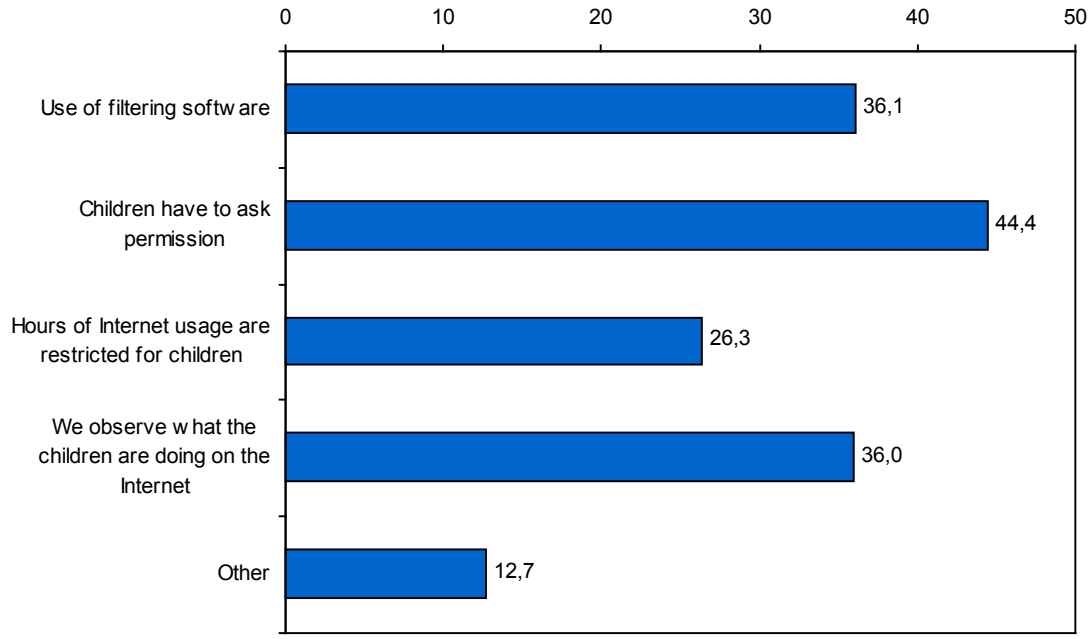
Figure 6-11 Usage of monitoring tools, percentage of respondents



(n=390)

The most frequent method to check teenagers' Internet usage is to let them ask permission. Using filtering software and keeping an eye on what children do on the Internet is considered an appropriate monitoring tool for 36 percent of respondents.

Figure 6-12 Means of supervision, percentage of respondents



(n=110)

International WIP data indicates considerable differences with respect to Internet monitoring by parents. In most countries, *personal* supervision is more common. In the USA, 90 percent of parents questioned observe what their children are doing on the Internet. Two thirds say that minors have to ask permission in order to use the Internet. Over 60 percent restrict the hours of Internet usage for children and one third uses filtering software.

In China parents also supervise their children. Only 8 percent of under 18-year-olds are allowed to use the Internet without supervision. 41.7 percent have to ask permission, 38.8 percent have a limited time and 10.3 percent are only allowed to go online in their parents' company.

In Italy, 57 percent of parents observe what the children and youngsters in their household do online, and 30 percent of respondents limit the hours of Internet use, 30 percent require that children seek permission before going online.

Table of figures

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The European Institute for the Media – General Information

The European Institute for the Media (EIM) was established in 1983, in Manchester, in co-operation with the European Cultural Foundation in Amsterdam. The EIM moved to Düsseldorf at the invitation of the Government and Parliament of North Rhine-Westphalia and the City of Düsseldorf. Former Chairmen were Karl-Günther von Hase, Pierre Desgraupes, Francisco Pinto Balsemão. The present chairman is Joan Majó I Cruzate. Former Director-Generals were George Wedell and Bernd-Peter Lange. The present Director-General is Jo Groebel. The Institute has become an internationally acknowledged independent centre of excellence for research into the impact of media and communication technology on society.

Research and strategy Development

The EIM is mainly concerned with: cross-border developments in the media and their role in the process of European integration; the public interest aspects of media developments and the growth of the information society. The three major programmes are:

Communication Policies

The Programme addresses both the political and regulatory approaches to media and communications. Projects include: Educational television, Independent production, International broadcasting, Building bridges between cultures, Europe in the media, Digital divide, Protection of minors on the Internet.

Digital World

The rapid transition of traditional media and society in conjunction with the convergence of media and (interactive) communication determines the research subjects in this unit. Projects include: The older generation and the European information society, Multimedia and society, Private space and the public sphere, Cybercrime, Global media user comparisons. The unit carries out the World Internet Project in Germany.

Media and Democracy

This programme is a media-oriented response to the political changes taking place in central and eastern Europe and the CIS countries. The aim of the programme is to assist in establishing and supporting media of high professional standards which are independent of government and vested interests. One of the main activities of the programme is monitoring the media coverage of elections on behalf of the EU Commission.

Events

Apart from the European Television and Film Forum, the European Institute for the Media presents the annual "Médaille Charlemagne pour des Médias Européens" in co-operation with the Landesanstalt für Medien NRW and the City of Aachen, and regularly takes part in top level events.

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